

BOWDOIN COLLEGE
1794



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Number 378


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Sessions of 1970-1971



September 1970

BRUNSWICK, MAINE



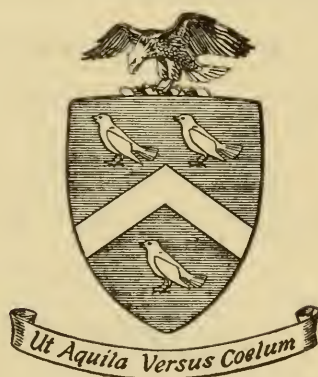
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Bowdoin College Bulletin

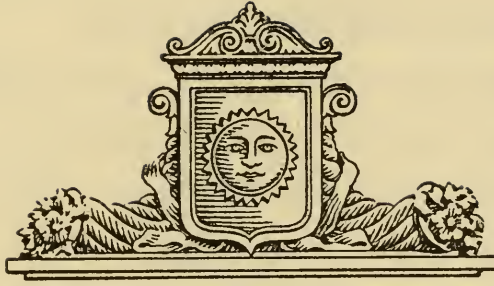
Sessions of 1970-1971

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CONTENTS

COLLEGE CALENDAR	vi
BOWDOIN COLLEGE: A HISTORICAL SKETCH	1
OFFICERS OF GOVERNMENT	5
OFFICERS OF INSTRUCTION	10
OFFICERS OF ADMINISTRATION	21
COLLEGE CAMPUS AND BUILDINGS	26
GENERAL INFORMATION	41
ADMISSION TO THE COLLEGE	44
SCHOLARSHIPS, LOANS, AND FINANCIAL AID	49
THE CURRICULUM	77
COURSES OF INSTRUCTION	87
RESERVE OFFICERS' TRAINING CORPS	157
THE LIBRARY	160
THE FINE ARTS.	168
MUSEUM OF ART	168
DRAMA AND STAGECRAFT	170
PRINTING AND TYPOGRAPHY	170
MUSIC	171

PUBLIC AFFAIRS RESEARCH CENTER	173
RESEARCH INSTITUTE OF THE GULF OF MAINE	174
THE BOWDOIN SCIENTIFIC STATION	175
LECTURESHIPS AND INSTITUTES	176
STUDENT LIFE AND ACTIVITIES	180
PHYSICAL EDUCATION AND ATHLETICS	189
CAREER COUNSELING AND PLACEMENT	191
PRIZES AND DISTINCTIONS	192
DEGREES CONFERRED IN AUGUST 1969	209
DEGREES CONFERRED IN JUNE 1970	209
APPOINTMENTS, PRIZES, AND AWARDS	213
ALUMNI ORGANIZATIONS	223
INDEX	231

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COLLEGE CALENDAR

1970-1971

1970

September 8, Tuesday. Rooms ready for occupancy by upperclassmen for the fall semester.

September 10, Thursday. Rooms ready for occupancy by freshmen for the fall semester.

September 11, Friday. Placement tests and conferences for freshmen.

September 14, Monday. Fall semester of the 169th academic year begins at 8:00 A.M. All students required to be in residence. Registration.

September 15, Tuesday. Opening Convocation exercises at 11:30 A.M. in the First Parish Church.

September 16, Wednesday. First classes.

September 22, Tuesday. Evening major meetings.

October 6, Tuesday. Evening major meetings.

October 10, Saturday. Alumni Day.

October 14, Wednesday. Freshman review.

October 16, Friday. James Bowdoin Day.

October 17, Saturday. Parents' Day.

October 20, Tuesday. Evening major meetings.

November 3, Tuesday. Evening major meetings.

November 9, Monday. Midsemester review of classes.

November 17, Tuesday. Evening major meetings.

November 25, Wednesday. Thanksgiving recess begins at the end of morning classes.

November 30, Monday. Thanksgiving recess ends, 8:00 A.M.

November 30, Monday. Last day for filing applications for scholarship aid during the spring semester.

December 8, Tuesday. Evening major meetings.

December 18, Friday. Christmas vacation begins at the end of morning classes.

1971

January 4, Monday. Christmas vacation ends, 8:00 A.M.

January 4-12, Monday-Tuesday. Reading period of the fall semester.

January 13-23, Wednesday-Saturday. Examination period of the fall semester.

January 27, Wednesday. Spring semester begins, 8:00 A.M.

January 29, Friday. Stated winter meetings of the Governing Boards.

February 9, Tuesday. Evening major meetings.

February 13, Saturday. Winter House Party.

February 23, Tuesday. Evening major meetings.

March 6, Saturday. Campus Chest Weekend.

March 9, Tuesday. Evening major meetings.

March 19, Friday. Spring vacation begins at the end of morning classes.

March 30, Tuesday. Spring vacation ends, 8:00 A.M.

March 30, Tuesday. Last day for filing applications for scholarship aid for the academic year 1971-1972.

March 30, Tuesday. Evening major meetings.

April 2, Friday. Midsemester review of classes.

April 13, Tuesday. Evening major meetings.

April 27, Tuesday. Evening major meetings.

April 30, Friday. Last day of classes of the spring semester.

May 1, Saturday. Ivy Day.

May 3-14, Monday-Friday. Reading period of the spring semester.

May 10, Monday. Last day for filing applications for all graduate scholarships.

May 17-27, Monday-Thursday. Examination period of the spring semester.

June 3, Thursday. Stated meetings of the Governing Boards.

1971

June 5, Saturday. The 166th Commencement Exercises, 10:00 A.M.

September 7, Tuesday. Rooms ready for occupancy by upperclassmen for the fall semester.

September 9, Thursday. Rooms ready for occupancy by freshmen for the fall semester.

September 10, Friday. Placement tests and conferences for freshmen.

September 13, Monday. Fall semester of the 170th academic year begins at 8:00 A.M. All students required to be in residence. Registration.

September 14, Tuesday. Opening Convocation exercises at 11:30 A.M. in the First Parish Church.

September 15, Wednesday. First classes.

November 24, Wednesday. Thanksgiving recess begins at the end of morning classes.

November 29, Monday. Thanksgiving recess ends, 8:00 A.M.

December 17, Friday. Christmas vacation begins at the end of morning classes.

1972

January 4, Tuesday. Christmas vacation ends, 8:00 A.M.

January 4-11, Tuesday-Tuesday. Reading period.

January 12-22, Wednesday-Saturday. Fall semester examinations.

January 26, Wednesday. Spring semester begins.

March 17, Friday. Spring vacation begins at the end of morning classes.

March 28, Tuesday. Spring vacation ends, 8:00 A.M.

April 29, Saturday. Ivy Day.

May 1-12, Monday-Friday. Reading period.

May 15-25, Monday-Thursday. Spring semester examinations.

June 3, Saturday. The 167th Commencement Exercises.

Bowdoin College:

A Historical Sketch

BOWDOIN College was established by charter from the General Court of Massachusetts, June 24, 1794, after repeated petitions to the state by citizens who wanted to provide educational opportunity in the District of Maine, then a rapidly growing frontier. Practical establishment of the College was more difficult, however, than the securing of a charter. The lands granted the College by the General Court were not readily convertible into cash. Gifts for its operation were slow in coming—except for one handsome donation by James Bowdoin III, son of the late governor of Massachusetts, whom the College honors in its name. Brunswick was selected as a proper site in 1796, but the erection of a building to house the College was not accomplished until 1802. On September 2 of that year, the Reverend Joseph McKeen was installed as the first president of the College. On the next day the College began its active educational life with eight students and one faculty member, in addition to its president.

The story of Bowdoin in its early years is an index to its entire history. Its first president was a man of religion and of science. Its first benefactor was distinguished as a diplomat, as a statesman, and as a gentleman of broad culture; and the inheritance of his extensive library and his fine collection of art established at the College a lasting conviction of the wisdom of strength in these areas of institutional resources. Its original Board was composed of strongly religious men, individually devoted to the Congregational Church as thoroughly as they were to the democratic ideals of a new nation.

The curriculum during the early years was rigidly prescribed and strong in the classics. In the field of science, mathematics was soon joined by the study of chemistry and mineralogy. Though small in size, the College had some of the greatest teachers it has known, and among the early graduates were several marked for future fame: for instance, Nathan Lord (1809), for thirty-five years president of Dartmouth; Seba Smith (1818), early humorist; Jacob Abbott (1820), prolific author of the "Rollo" books; William Pitt Fessenden (1823), for a short time President Lincoln's secretary of the treasury; Franklin Pierce (1824), fourteenth president of the United States; and Nathaniel Hawthorne and Henry Wadsworth Longfellow, both of the Class of 1825.

The traditions of the College and its pattern of conservatively progressive education were established in its first quarter century. Hardly had Longfellow been graduated from Bowdoin before he went abroad to qualify himself as a pioneer teacher—first at Bowdoin, later at Harvard—of modern languages.

In 1820 the College established a Medical School, which in the 101 years of its existence produced many well-trained doctors who practiced in Maine and, to a lesser extent, elsewhere. In 1921, when the needed clinical facilities and technical equipment had become too complex and expensive for a small institution to supply, it was deemed expedient to discontinue the School.

Bowdoin was established more on faith than endowment, and its finances suffered severely in the aftermath of the panic of 1837. However, its growth was slow and steady. Social fraternities appeared on the campus in the 1840s, followed by organized athletics in the late 1850s. *The Bowdoin Orient*, which claims to be the oldest continuously published college weekly in the country, appeared first in 1871. As the controversy over slavery worked towards a climax, the home of Professor Smyth was a station of the “underground railroad” for escaped slaves; and here, in another professorial household, was written the book that was to arouse the conscience of a nation, *Uncle Tom’s Cabin*. During the Civil War the College sent into the service a greater number of men in proportion to its size than any other college in the North.

The twenty years following the Civil War were the most critical in the history of the College. After President Harris’s short term of four years (1867-1871), Joshua Lawrence Chamberlain, Maine’s most distinguished war hero and governor of the state for four terms following his return to civilian life, was elected president. During these two administrations the curriculum was modernized somewhat, but the establishment of an Engineering School in 1871 was unsuccessful, since it survived for only ten years. Its most famous graduate was Admiral Robert E. Peary (1877), the first to reach the North Pole.

President Chamberlain, for all his great services to college, state, and nation, was unequal to coping with the difficulties now besetting the institution: inadequate endowment and equipment, a decreasing enrollment, dissension among the Faculty and Boards. Probably no one else connected with either group could have succeeded in the circumstances. Chamberlain’s resignation in 1883 provided an opportunity to secure from outside the College the vigorous leadership imperatively needed.

The inauguration in 1885, after a two years’ interregnum, of the

Reverend William DeWitt Hyde marks the real beginning of another era. He brought to his task of rejuvenating the institution a boundless physical capacity that was matched by his awareness of a modern and changing world and by scholarly ability that made his national reputation an ornament to Bowdoin. He built the College figuratively and literally, introducing new subjects into the curriculum and enlarging the physical facilities on the campus by over a hundred percent. Under him, enrollment increased from 119 in 1885 to 400 in 1915; the endowment in the same period from \$378,273 to \$2,312,868. He emphasized teaching as the responsibility of the College and learning as the responsibility of the students. His vigor impregnated the whole life and spirit of the College. It was under President Hyde that Bowdoin's philosophy of its students and of its faculty as responsible, independent individuals became fixed.

Kenneth C. M. Sills succeeded President Hyde after the latter's death in 1917. He was a natural successor (though not a slavish disciple) of President Hyde. He carried forward his predecessor's program, seeing the College successfully through the upheavals concomitant to two wars. Under him, Bowdoin gradually emerged from being a "country college" to a new and increasingly respected status as a country-wide college. Physical facilities were improved and increased. The Faculty grew from thirty-one to eighty-one; enrollment, from 400 to double that figure; and endowment, from \$2,473,451 to \$12,312,274. Student activities were expanded, and the fraternity system was developed into a cooperative and democratic component of student life.

President Sills was succeeded by James Stacy Coles in the fall of 1952. During his fifteen-year tenure, Bowdoin met the rapidly changing demands of society and students by introducing curricular innovations, expanding the size of its Faculty and improving its facilities at a faster pace than during any comparable period in its history. It was during these years that Bowdoin thoroughly revised its curriculum, extended honors work to all gifted students, introduced independent study courses, initiated an undergraduate research fellowship program, and started its pioneering Senior Year Program. To accomplish these academic improvements, the College expanded the size of its Faculty by over a third, to 109, and raised salaries to a level which has enabled it to continue attracting and retaining outstanding teachers. The value of the College's plant showed a similar dramatic increase. The Arena, Morrell Gymnasium, Senior Center, Coleman Hall, Gibson Hall, and Hawthorne-Longfellow Library were constructed. At the same time,

Pickard Theater was constructed in Memorial Hall; Massachusetts Hall, Hubbard Hall, and three dormitories were renovated; and the Moulton Union and Dudley Coe Infirmary were enlarged.

President Coles resigned at the end of 1967 and a year later, on January 1, 1969, Roger Howell, Jr., a member of Bowdoin's Class of 1958, Rhodes scholar, and chairman of the Department of History, became the tenth president of the College. Only thirty-two at the time of his election, Dr. Howell had already achieved international eminence as a scholar of British history.

Under his leadership, Bowdoin has sought to meet the challenges which have ever stood before it: of attracting and holding a faculty of the highest caliber to provide the best possible education for its students; and of obtaining more and larger scholarships so that its student body may continue to reflect a cross section of our society. Meeting these challenges is held to be essential if Bowdoin is to continue its tradition of serving the common good.

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* Died January 22, 1970.

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* Died February 9, 1970.

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* Died July 22, 1970.

† Died January 16, 1970.

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Planning Committee on Administrative Office Space: Messrs. Sawyer, Pickard, Blakeley, Bass, and Kresch; and Messrs. Hokanson and Libby from the Faculty.

Planning of Buildings: The President; Messrs. Shute, Thomas, Pickard, Sibley, Blakeley, Cronkhite, and Arnold; and Professors Beam and Shipman from the Faculty.

Student Environment: Messrs. W. C. Pierce, Shute, Cousins, Rounds, Niblock, Dickson, Hayes, and Fisher.

Architect for Art Building: Messrs. Pickard, Baxter, Blakeley, Knox, and Wiley; and Professors Beam and Cornell and Mr. West from the Faculty.

Capital Gains and Losses: Messrs. Sawyer, Baxter, Walker, Pope, Greene, Orne, and Ingalls.

Ad Hoc Committee on the Life of the College: Messrs. Goodrich, Gray, Bernstein, Gulliver, and Wiley.

Membership and Operation of Governing Boards: Messrs. Allen, Cousins, Drake, Bernstein, and Wiley; Lawrence Dana, W. D. Ireland, Jr., and A. E. Gibbons, Jr.; the President, the Dean of the Faculty; Professors Ambrose, Geary, Long, McGee, and Rossides; and three undergraduates.

FACULTY REPRESENTATIVES

Trustees: Professors Geary and McGee.

Overseers: Professors Ambrose, Long, and Rossides.

STUDENT REPRESENTATIVES

Trustees: C. Mitchell Goldman '72 and Geoffrey B. Ovenden '71 (ex officio).

Overseers: Michael S. Cary '71, Vincent A. DiCara '72, and Robert G. Stewart '71 (ex officio).

Officers of Instruction

ROGER HOWELL, JR., A.B. (*Bowdoin*), B.A., M.A., D.Phil. (*Oxford*), LL.D. (*Nasson, Colby*), *President of the College*.

MANTON COPELAND, B.S., M.S., Ph.D. (*Harvard*), *Professor of Biology Emeritus and Josiah Little Professor of Natural Science Emeritus*.

ORREN CHALMER HORMELL, A.B. (*Indiana*), A.M. (*Indiana, Harvard*), Ph.D. (*Harvard*), D.C.L. (*Bowdoin*), *DeAlva Stanwood Alexander Professor of Government Emeritus and Director of the Bureau for Research in Municipal Government Emeritus*.

* ALFRED OTTO GROSS, A.B. (*Illinois*), Ph.D. (*Harvard*), Sc.D. (*Bowdoin*), *Professor of Biology Emeritus and Josiah Little Professor of Natural Science Emeritus*.

THOMAS CURTIS VAN CLEVE, A.B., A.M. (*Missouri*), Ph.D. (*Wisconsin*), Litt.D. (*Bowdoin*), *Thomas Brackett Reed Professor of History and Political Science Emeritus*.

NOEL CHARLTON LITTLE, A.B. (*Bowdoin*), A.M., Ph.D. (*Harvard*), Sc.D. (*Bowdoin*), *Professor of Physics Emeritus and Josiah Little Professor of Natural Science Emeritus*.

EDWARD SANFORD HAMMOND, A.B., A.M. (*Yale*), Ph.D. (*Princeton*), *Wing Professor of Mathematics Emeritus*.

EDITH ELLEN LYON, *Assistant, College Editor, Emerita*.

† NATHANIEL COOPER KENDRICK, A.B. (*Rochester*), A.M., Ph.D. (*Harvard*), L.H.D. (*Bowdoin*), *Dean of the College Emeritus and Frank Munsey Professor of History Emeritus*.

CECIL THOMAS HOLMES, A.B. (*Bates*), A.M., Ph.D. (*Harvard*), *Wing Professor of Mathematics Emeritus*.

KENNETH JAMES BOYER, A.B. (*Rochester*), B.L.S. (*New York State Library School*), *College Editor Emeritus*.

PHILIP SAWYER WILDER, B.S. (*Bowdoin*), Ed.M. (*Harvard*), *Assistant to the President Emeritus*.

DONOVAN DEAN LANCASTER, A.B. (*Bowdoin*), *Director of the Moulton Union and the Centralized Dining Service Emeritus*.

* Died May 9, 1970.

† Died September 2, 1969.

EDWARD CHASE KIRKLAND, A.B. (*Dartmouth*), A.M., Ph.D. (*Harvard*), M.A. (*Cambridge*), Litt.D. (*Dartmouth, Princeton, Bowdoin*), *Frank Munsey Professor of History Emeritus.*

GLENN RONELLO MCINTIRE, A.B., A.M. (*Bowdoin*), *Assistant Treasurer Emeritus.*

SAMUEL EDWARD KAMERLING, B.S., M.S. (*New York University*), Ph.D. (*Princeton*), *Charles Weston Pickard Professor of Chemistry Emeritus.*

GEORGE HUNNEWELL QUINBY, A.B. (*Bowdoin*), M.F.A. (*Yale*), *Professor of English Emeritus.*

PHILIP MEADER BROWN, A.B. (*Brown*), A.M. (*Stanford*), Ph.D. (*Harvard*), *Professor of Economics Emeritus.*

EATON LEITH, A.B. (*Dartmouth*), A.M. (*Harvard*), *Professor of Romance Languages Emeritus.*

ALBERT RUDOLPH THAYER, A.B. (*Bowdoin*), A.M. (*Emerson*), *Harrison King McCann Professor of Oral Communication in the Department of English Emeritus.*

DANIEL KNOWLES MACFAYDEN, *Coach of Baseball Emeritus.*

HERBERT ROSS BROWN, B.S. (*Lafayette*), A.M. (*Harvard*), Ph.D. (*Columbia*), Litt.D. (*Lafayette, Bowdoin*), L.H.D. (*Bucknell*), LL.D. (*Maine*), *Professor of English and Edward Little Professor of Rhetoric and Oratory.*

ALBERT ABRAHAMSON, A.B. (*Bowdoin*), A.M. (*Columbia*), *George Lincoln Skolfield, Jr., Professor of Economics. (On leave of absence in the spring semester.)*

FRITZ CARL AUGUST KOELLN, Ph.D. (*Hamburg*), *George Taylor Files Professor of Modern Languages.*

ATHERN PARK DAGGETT, A.B. (*Bowdoin*), A.M., Ph.D. (*Harvard*), LL.D. (*Bowdoin*), *William Nelson Cromwell Professor of Constitutional and International Law and Government.*

ERNST CHRISTIAN HELMREICH, A.B. (*Illinois*), A.M., Ph.D. (*Harvard*), *Thomas Brackett Reed Professor of History and Political Science. (On leave of absence in the spring semester.)*

MYRON ALTON JEPPESEN, B.S. (*Idaho*), M.S., Ph.D. (*Pennsylvania State*), *Professor of Physics and Josiah Little Professor of Natural Science.*

Officers of Instruction

PHILIP CONWAY BEAM, A.B., A.M., Ph.D. (*Harvard*), *Henry Johnson Professor of Art and Archaeology and Curator of the Winslow Homer Collection.*

THOMAS AURALDO RILEY, A.B. (*Bowdoin*), A.M. (*Yale*), Ph.D. (*Harvard*), *Professor of German.*

DAN EDWIN CHRISTIE, A.B. (*Bowdoin*), A.M., Ph.D. (*Princeton*), *Wing Professor of Mathematics.*

BURTON WAKEMAN TAYLOR, B.S. (*Yale*), Ph.D. (*Columbia*), *Professor of Sociology.*

RICHARD LEIGH CHITTIM, A.B. (*Bowdoin*), B.A., M.A. (*Oxford*), *Professor of Mathematics and Clerk of the Faculty.*

ALTON HERMAN GUSTAFSON, B.S. (*Massachusetts*), A.M., Ph.D. (*Harvard*), *Professor of Biology.*

LAWRENCE SARGENT HALL, A.B. (*Bowdoin*), A.M., Ph.D. (*Yale*), *Henry Leland Chapman Professor of English Literature.*

NATHAN DANE II, A.B. (*Bowdoin*), A.M., Ph.D. (*Illinois*), *Winkley Professor of the Latin Language and Literature.*

PAUL VERNON HAZELTON, B.S. (*Bowdoin*), Ed.M. (*Harvard*), *Professor of Education. (On leave of absence in the spring semester.)*

EDWARD POLS, A.B., A.M., Ph.D. (*Harvard*), *Professor of Philosophy.*

ARTHUR LEROY GREASON, JR., A.B. (*Wesleyan*), A.M., Ph.D. (*Harvard*), *Dean of the College and Professor of English.*

JAMES MALCOLM MOULTON, B.S. (*Massachusetts*), A.M., Ph.D. (*Harvard*), *Professor of Biology.*

CHARLES ELLSWORTH HUNTINGTON, A.B., Ph.D. (*Yale*), *Professor of Biology. (On leave of absence.)*

ROBERT KINGDON BECKWITH, B.S. (*Lehigh*), M.S. (*Juilliard*), *Professor of Music.*

WILLIAM BOLLING WHITESIDE, A.B. (*Amherst*), A.M., Ph.D. (*Harvard*), *Director of the Senior Center and Frank Munsey Professor of History.*

ELROY OSBORNE LACASCE, JR., A.B. (*Bowdoin*), A.M. (*Harvard*), Ph.D. (*Brown*), *Professor of Physics.*

WILLIAM DAVIDSON GEOGHEGAN, A.B. (*Yale*), B.D. (*Drew*), Ph.D. (*Columbia*), *Professor of Religion.*

- LOUIS OSBORNE COXE, A.B. (*Princeton*), *Pierce Professor of English*.
- PAUL GIFFORD DARLING, A.B. (*Yale*), A.M. (*New York University*), Ph.D. (*Columbia*), *Professor of Economics*. (On leave of absence.)
- WILLIAM DAVIS SHIPMAN, A.B. (*University of Washington*), A.M. (*California*), Ph.D. (*Columbia*), *Adams-Catlin Professor of Economics*.
- DANA WALKER MAYO, B.S. (*Massachusetts Institute of Technology*), Ph.D. (*Indiana*), *Charles Weston Pickard Professor of Chemistry*.
- CHARLES DOUGLAS MCGEE, B.S., A.M. (*Northwestern*), Ph.D. (*Harvard*), *Professor of Philosophy*.
- JOHN CHAUNCEY DONOVAN, A.B. (*Bates*), A.M., Ph.D. (*Harvard*), *DeAlva Stanwood Alexander Professor of Government*.
- EDWARD JOSEPH GEARY, A.B. (*Maine*), A.M., Ph.D. (*Columbia*), hon. M.A. (*Harvard*), *Longfellow Professor of Romance Languages*.
- MICHAEL CHARLES HURST, M.A. (*Oxford*), *Visiting Professor of History on the Tallman Foundation*.
- ELLIS RIDGEWAY LIPPINCOTT, A.B. (*Earlham*), A.M., Ph.D. (*Johns Hopkins*), *Visiting Professor of Chemistry on the Tallman Foundation*. (Fall 1970 semester.)
- PANOS GEORGE GHIKAS, B.F.A., M.F.A. (*Yale*), *Visiting Professor of Art*. (Fall 1970 semester.)
- ROBERT RAYMOND NUNN, A.B. (*Rutgers*), A.M. (*Middlebury*), Ph.D. (*Columbia*), *Associate Professor of Romance Languages*.
- ARTHUR MEKEEL HUSSEY II, B.S. (*Pennsylvania State*), Ph.D. (*Illinois*), *Associate Professor of Geology*.
- JAMES LEE HODGE, A.B. (*Tufts*), A.M., Ph.D. (*Pennsylvania State*), *Associate Professor of German*.
- ALFRED HERMAN FUCHS, A.B. (*Rutgers*), A.M. (*Ohio*), Ph.D. (*Ohio State*), *Associate Professor of Psychology*.
- THOMAS BROWNE CORNELL, A.B. (*Amherst*), *Associate Professor of Art*. (On leave of absence.)
- JAMES DANIEL REDWINE, JR., A.B. (*Duke*), A.M. (*Columbia*), Ph.D. (*Princeton*), *Associate Professor of English*.
- JOHN LAFOLLETTE HOWLAND, A.B. (*Bowdoin*), Ph.D. (*Harvard*), *Associate Professor of Biology*.

DANIEL LEVINE, A.B. (*Antioch*), A.M., Ph.D. (*Northwestern*), *Associate Professor of History*.

JOHN CORNELIUS RENSENBRINK, A.B. (*Calvin*), A.M. (*Michigan*), Ph.D. (*Chicago*), *Associate Professor of Government*.

JAMES HENRY TURNER, A.B. (*Bowdoin*), B.S., M.S., Ph.D. (*Massachusetts Institute of Technology*), *Associate Professor of Physics*. (On leave of absence in the spring semester.)

SAMUEL SHIPP BUTCHER, A.B. (*Albion*), A.M., Ph.D. (*Harvard*), *Associate Professor of Chemistry*. (On leave of absence.)

ELLIOTT SHELLING SCHWARTZ, A.B., A.M., Ed.D. (*Columbia*), *Associate Professor of Music*.

HERBERT RANDOLPH COURSEN, JR., A.B. (*Amherst*), A.M. (*Wesleyan*), Ph.D. (*Connecticut*), *Associate Professor of English*. (On leave of absence.)

ROBERT WELLS JOHNSON, A.B. (*Amherst*), M.S., Ph.D. (*Massachusetts Institute of Technology*), *Associate Professor of Mathematics*. (On leave of absence in the spring semester.)

CHARLES ALFRED GROBE, JR., B.S., M.S., Ph.D. (*Michigan*), *Associate Professor of Mathematics*.

ALBERT MYRICK FREEMAN III, A.B. (*Cornell*), A.M., Ph.D. (*University of Washington*), *Associate Professor of Economics*.

JOHN WILLIAM AMBROSE, JR., A.B., A.M., Ph.D. (*Brown*), *Associate Professor of Classics*.

DANIEL WALTER ROSSIDES, A.B., Ph.D. (*Columbia*), *Associate Professor of Sociology*.

RICHARD ERNEST MORGAN, A.B. (*Bowdoin*), A.M., Ph.D. (*Columbia*), *Associate Professor of Government*.

CLIFFORD RAY THOMPSON, JR., A.B., A.M., Ph.D. (*Harvard*), *Assistant Professor of Romance Languages*.

BROOKS WHITNEY STODDARD, A.B. (*Williams*), A.M. (*New York University*), *Assistant Professor of Art*.

BURTON RUBIN, A.B. (*New York University*), A.M. (*Columbia*), *Assistant Professor of Russian*.

ROBERT EARLE KNOWLTON, A.B. (*Bowdoin*), Ph.D. (*North Carolina*), *Assistant Professor of Biology*.

- PAUL LUTHER NYHUS, A.B. (*Augsburg*), S.T.B., Ph.D. (*Harvard*),
Dean of Students and Assistant Professor of History.
- EDWARD HERBERT HANIS, A.B. (*Cornell*), Ph.D. (*Indiana*), *Assistant Professor of Economics.*
- LAWRENCE CHARLES PERLMUTER, A.B. (*Boston University*), A.M.,
Ph.D. (*Syracuse*), *Assistant Professor of Psychology.*
- ALLAN JOSEPH SILBERGER, A.B. (*Rochester*), A.M., Ph.D. (*Johns Hopkins*), *Assistant Professor of Mathematics.*
- WILLIAM TAYLOR HUGHES, B.S., A.M. (*Indiana*), Ph.D. (*Northwestern*), *Assistant Professor of Physics and Astronomy.*
- DAVID ALAN WHEATLAND, B.S. (*Brown*), Ph.D. (*Maryland*), *Assistant Professor of Chemistry.*
- ROBIN BRUCE STIRLING BROOKS, A.B. (*Columbia*), A.M. (*Yale*), Ph.D. (*University of California, Los Angeles*), *Assistant Professor of Mathematics.*
- FREDERICK NEIL SPRINGSTEEL, A.B. (*Notre Dame*), A.M., Ph.D. (*University of Washington*), *Assistant Professor of Mathematics.*
- BARRY LEE LIVELY, B.S. (*Pennsylvania State*), A.M. (*Kent*), Ph.D. (*Michigan*), *Assistant Professor of Psychology.*
- EDWARD BOYD MINISTER, A.B. (*Ohio*), A.M., Ed.D. (*Columbia*), *Assistant Professor of Sociology.*
- IVAN JULIAN HYAMS, B.Sc. (*Sir John Cass College, London*), Ph.D. (*Royal Holloway College, Surrey*), *Assistant Professor of Chemistry.*
- KIRK RETIG EMMERT, A.B. (*Williams*), A.M. (*Chicago*), *Assistant Professor of Government.*
- FRANKLIN GORHAM BURROUGHS, JR., A.B. (*University of the South*),
A.M., Ph.D. (*Harvard*), *Assistant Professor of English.*
- THOMAS DUVALL HOPKINS, A.B. (*Oberlin*), A.M., M.Phil. (*Yale*), *Assistant Professor of Economics. (On leave of absence in the fall semester.)*
- CLAUDE MARIE-JOSEPH CARRIÈRE, A.B. (*Wisconsin*), A.M. (*Brown*),
Assistant Professor of Romance Languages.
- DUANE ALAN PALUSKA, A.B. (*Knox*), A.M. (*Middlebury*), Ph.D. (*Brandeis*), *Assistant Professor of English.*

- BURKE O'CONNOR LONG, A.B. (*Randolph-Macon*), B.D., A.M., Ph.D. (*Yale*), *Assistant Professor of Religion.*
- JAMES EDWARD WARD III, A.B. (*Vanderbilt*), A.M., Ph.D. (*Virginia*), *Assistant Professor of Mathematics.*
- GABRIEL JOHN BROGYANYI, A.B. (*Columbia*), A.M., Ph.D. (*Cornell*), *Assistant Professor of Romance Languages.*
- JOHN MICHAEL KARL, A.B., A.M. (*Harvard*), *Assistant Professor of History.*
- CRAIG DIETRICH, A.B. (*Chicago*), *Assistant Professor of History.*
- THOMAS LYNCH BOHAN, B.S. (*Chicago*), M.S., Ph.D. (*Illinois*), *Assistant Professor of Physics.*
- ALMON ABBOTT IKELER, A.B. (*Harvard*), A.M. (*Pittsburgh*), Ph.D. (*London*), *Assistant Professor of English.*
- JOHN BUELL MATHIS, B.S. (*Yale*), Ph.D. (*Massachusetts Institute of Technology*), *Assistant Professor of Chemistry.*
- JAMES EDWARD BLAND, A.B., Ph.D. (*Harvard*), *Assistant Professor of History.*
- CARL THOMAS SETTLEMIRE, B.S., M.S. (*Ohio State*), Ph.D. (*North Carolina*), *Assistant Professor of Biology and Chemistry.*
- KATHERINE SHERMAN SNIDER, A.B. (*Bryn Mawr*), A.M. (*Toronto*), *Assistant Professor of Philosophy.*
- ROBERT IRVING WILLMAN, A.B., Ph.D. (*Harvard*), *Assistant Professor of History.*
- MOSES REGINALD LEWIS, A.B. (*Morgan State*), A.M. (*Boston University*), *Assistant Professor of Government and History.*
- CHRISTIAN PETER POTHOLM II, A.B. (*Bowdoin*), A.M., M.A.L.D., Ph.D. (*Tufts*), *Assistant Professor of Government.*
- JAMES PAUL McDERMOTT, A.B. (*Wesleyan*), B.D. (*Yale*), A.M. (*Princeton*), *Assistant Professor of Religion.*
- DONALD GRAHAM CALDWELL, A.B. (*University of California, Los Angeles*), A.M. (*Occidental*), *Assistant Professor of Music.*
- SAMUEL LOTHROP THORNDIKE, JR., A.B. (*Swarthmore*), Ph.D. (*Columbia*), *Assistant Professor of Economics.*
- DAVID JEREMIAH VAIL, A.B. (*Princeton*), A.M., M.Phil. (*Yale*), *Assistant Professor of Economics.*

KENNETH FREDERICK IRELAND, A.B., Ph.D. (*Johns Hopkins*), *Visiting Assistant Professor of Mathematics*.

WOLCOTT ANDERS HOKANSON, JR., A.B. (*Bowdoin*), M.B.A. (*Harvard*), *Lecturer in Economics* (Spring 1971 semester) and *Vice President for Administration and Finance*.

MYRON WHIPPLE CURTIS, A.B. (*Bowdoin*), A.M. (*University of California, Los Angeles*), *Director of the Computing Center and Lecturer in Mathematics*.

ELIZABETH MENDELL GROBE, A.B. (*Bryn Mawr*), A.M., Ph.D. (*Michigan*), *Lecturer in Mathematics*.

JOHN MCKEE, A.B. (*Dartmouth*), A.M. (*Princeton*), *Lecturer in Art*.

GEORGE BLAISE TERRIEN, A.B., B.Arch. (*Columbia*), *Lecturer in Art*. (Spring 1971 semester.)

KRISTINA ARNDT MINISTER, B.F.A. (*Ohio*), A.M. (*Columbia*), *Instructor in Speech*.

MICHAEL KARL CHAPKO, B.S. (*Carnegie Institute of Technology*), A.M. (*Hunter*), *Instructor in Psychology*.

WILLIAM HAROLD BENNETT, A.B. (*Denver*), A.M. (*Arizona State*), *Instructor in Speech*.

FRANK FABEAN SABASTEANSKI, A.B. (*Bowdoin*), Ed.M. (*Boston University*), *Coach of Track and Cross-Country*.

EDMUND LAWRENCE COOMBS, B.S. (*Bowdoin*), *Coach of Baseball and Freshman Basketball*.

MIKE LINKOVICH, A.B. (*Davis and Elkins*), *Assistant Coach and Trainer in the Department of Physical Education*.

SIDNEY JOHN WATSON, B.S. (*Northeastern*), *Coach of Hockey and Golf*.

CHARLES JOSEPH BUTT, B.S., M.S. (*Springfield*), *Coach of Soccer and Swimming*.

RAY STUART BICKNELL, B.S., M.S. (*Springfield*), *Coach of Basketball*.

PHILIP HILTON SOULE, A.B. (*Maine*), *Coach of Wrestling*.

JAMES SPENCER LENTZ, A.B. (*Gettysburg*), A.M. (*Columbia*), *Coach of Football and Freshman Lacrosse*.

MORTIMER FERRIS LAPOINTE, B.S. (*Trinity*), M.A.L.S. (*Wesleyan*), *Coach of Lacrosse*.

EDWARD THOMAS REID, *Coach of Squash and Tennis.*

Research Associate

ROBERT FRANC RITCHIE, M.D. (Rochester), *Research Associate in Biology.*

Teaching Fellows

JOHN CLEMENT DAVIS III, A.B. (Bowdoin), *Teaching Fellow in Physics.*

LUTHER GORG, *Teaching Fellow in German.*

NANCY METNICK HANIS, A.B. (Rutgers), *Teaching Fellow in Biology.*

GUNTER ISLE, *Teaching Fellow in German.*

FRANÇOIS POURCELET, *Teaching Fellow in French.*

MARY-AGNES WINE, A.B., A.M. (Mount Holyoke), *Teaching Fellow in Biology.*

COMMITTEES OF THE FACULTY

STANDING

Administrative: The President, *Chairman*; the Dean of the College, the Dean of Students, the College Physician (all ex officio); and Messrs. Brooks, Dane, Gustafson, Hussey, and Thompson.

Admissions and Student Aid: Mr. Geary, *Chairman*; the Dean of the College, the Dean of Students, the Director of Admissions (ex officio), the Director of Student Aid (ex officio), the Assistant Dean of Students (ex officio); Messrs. Bohan, Jefferson, Rensenbrink, Stuckey, and Ward; and three undergraduates.

Advanced Study: Mr. Mayo, *Chairman*; the Dean of the College (ex officio); Messrs. Christie, Hanis, Redwine, and Rossides; and three undergraduates.

Afro-American Studies: Mr. Lewis, *Chairman*; the Assistant Dean of Students (ex officio); Messrs. Levine, Rensenbrink, Rossides, and Ward; and five undergraduates.

Athletics: The Dean of the College, *Chairman*; the Director of Athletics; Messrs. Chittim, Curtis, Geoghegan, Howland, and McGee; and three undergraduates.

Bowdoin's Responsibilities to the Disadvantaged: Mr. Minister, *Chairman*; the Director of Admissions (ex officio), the Assistant Dean

of Students (ex officio); Messrs. Emmert, Perlmutter, Mrs. Snider, and Mr. Taylor; and four undergraduates.

Computing Center: Mr. Grobe, *Chairman*; the Vice President for Administration and Finance (ex officio); Mr. Curtis, *Secretary*; Messrs. Hanis, Hughes, Lively, and Mrs. Snider; and three undergraduates.

Curriculum and Educational Policy: The President, *Chairman*; the Dean of the College, the Dean of the Faculty, the Director of the Senior Center; Mr. Fuchs, *Secretary*; and Messrs. Hughes, Long, McGee, Mathis, and Morgan.

Faculty Research: The President, *Chairman*; the Dean of the Faculty (ex officio); and Messrs. Brown, Hopkins, J. M. Moulton, Pols, and Stoddard.

Graduate Scholarships: The Dean of the College, *Chairman*; the Director of Student Aid, *Secretary*; and Messrs. Dane, Donovan, Mrs. Grobe, Messrs. Hall, Jeppesen, and Settlemire.

Lectures and Concerts: Mr. Beam, *Chairman*; the Executive Secretary (ex officio); the Director of the Senior Center; Messrs. Beckwith, Bland, Carrière, Paluska, and Springsteel; and three undergraduates.

Library: Mr. Pols, *Chairman*; the Librarian (ex officio); Messrs. Grobe, Hodge, Karl, and Thompson; and three undergraduates.

Military Affairs: Mr. Ambrose, *Chairman*; the Dean of the College, the Director of the ROTC Program; Messrs. Bohan, Brogyanyi, and Taylor; and three undergraduates.

Recording: The Dean of the College, *Chairman*; the Dean of Students, the Director of the Computing Center; and Messrs. Donovan, Hussey, J. M. Moulton, Redwine, and Schwartz.

Senior Center Council: Mr. Hodge, *Chairman*; the Director of the Senior Center, the Dean of the Faculty; the Assistant to the Director of the Senior Center (ex officio); Messrs. Chittim, Daggett, and Settlemire; and four undergraduates.

Student Activities Fee: Mr. Monke, *Chairman*; Messrs. Burroughs, Knowlton, Treadwell, H. K. Warren, *Secretary*, and Wheatland; and the President of the Student Council and four undergraduates.

Student Awards: Mr. Nunn, *Chairman*; and Messrs. Ikeler, Morgan, Silberger, Stoddard, and Willman.

Student Life: The Dean of Students, *Chairman*; Messrs. Ambrose, Anderson, Cowing, Fuchs, Lively, and H. K. Warren (ex officio); and five undergraduates.

Teaching as a Career: Mr. Hazelton, *Chairman*; the Alumni Secretary (ex officio); and Messrs. Ireland, Ladd, Riley, and Rubin.

SPECIAL

Committee on Committees: Mr. Daggett, *Chairman*; the Dean of the Faculty (ex officio); and Messrs. Hanis, Mathis, and Redwine.

Educational Television: Mr. Beam, *Chairman*; the Director of Pickard Theater; and Messrs. Gustafson, LaCasce, Mrs. Minister, and Mr. Paluska.

Environmental Studies: Mr. Freeman, *Chairman*; Messrs. Howland, Knowlton, McKee, and Potholm; and three undergraduates.

Governance of the College: The President, *Chairman*; the Dean of the Faculty; Messrs. Ambrose, Geary, Long, McGee, and Rossides; and three undergraduates.

Fulbright Scholarship Subcommittee of the Committee on Graduate Scholarships: Mr. Karl, *Chairman*; and Messrs. Brown, Hodge, Hyams, and Perlmutter.

Medical Scholarship Subcommittee of the Committee on Graduate Scholarships: The President, *Chairman*; the Dean of the College; the College Physician; and Messrs. LaCasce and J. M. Moulton.

Rhodes Scholarship Subcommittee of the Committee on Graduate Scholarships: The President, *Chairman*; the Dean of Students; and Messrs. Chittim and Whiteside.

Student Environment: Eight Board members; the Dean of Students; Messrs. Dane and Minister; and two undergraduates.

Summer Use of the Pickard Theater: The Dean of the College, *Chairman*; the Director of Pickard Theater, the Vice President for Administration and Finance; Mr. Beckwith, Mrs. Minister, and Mr. Taylor; and two undergraduates.

Upward Bound Advisory: Mr. Stuckey, *Chairman*; the Dean of the College; the Vice President for Administration and Finance; the Director of Student Aid; the Director of Admissions; Messrs. Hodge, Rossides, and H. K. Warren; and five undergraduates.

Officers of Administration

GENERAL ADMINISTRATION

(Hawthorne-Longfellow Hall)

ROGER HOWELL, JR., A.B. (*Bowdoin*), B.A., M.A., D.Phil. (*Oxford*), LL.D. (*Nasson, Colby*), *President*.

ARTHUR LEROY GREASON, JR., A.B. (*Wesleyan*), A.M., Ph.D. (*Harvard*), *Dean of the College*.

OLIN CLYDE ROBISON, A.B. (*Baylor*), D.Phil. (*Oxford*), *Dean of the Faculty*.

WOLCOTT ANDERS HOKANSON, JR., A.B. (*Bowdoin*), M.B.A. (*Harvard*), *Vice President for Administration and Finance*.

JOSEPH JEFFERSON, A.B. (*Columbia*), *Vice President for Development*.

PAUL LUTHER NYHUS, A.B. (*Augsburg*), S.T.B., Ph.D. (*Harvard*), *Dean of Students*.

CHARLES WARREN RING, A.B. (*Hamilton*), *Executive Secretary*.

PHILIP SAWYER WILDER, B.S. (*Bowdoin*), Ed.M. (*Harvard*), *Adviser to Foreign Students*.

HELEN BUFFUM JOHNSON, *Registrar*.

ASHLEY STREETMAN, JR., A.B. (*Bowdoin*), *Assistant Dean of Students*.

KATHRYN DRUSILLA FIELDING, A.B. (*Connecticut College*), *Secretary to the President*.

MARY CROWLEY BERNIER, *Assistant to the Vice President for Administration and Finance*.

ADMISSIONS OFFICE

(Hawthorne-Longfellow Hall)

RICHARD WOOD MOLL, A.B. (*Duke*), B.D. (*Yale*), *Director*.

WALTER HENRY MOULTON, A.B. (*Bowdoin*), *Director of Student Aid and Assistant Director*.

RICHARD FOWLER BOYDEN, A.B. (*Wesleyan*), *Associate Director*.

DAVID ROGERS TREADWELL, JR., A.B. (*Bowdoin*), M.B.A. (*Harvard*), *Associate Director*.

Officers of Administration

MARGARET EDISON DUNLOP, A.B. (*Wellesley*), *Assistant.*

RICHARD HENRY SAUNDERS III, A.B. (*Bowdoin*), *Assistant to the Director.*

BUSINESS OFFICE
(Hawthorne-Longfellow Hall)

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THOMAS MARTIN LIBBY, A.B. (*Maine*), *Bursar.*

JAMES PACKARD GRANGER, B.S. (*Boston University*), C.P.A., *Controller.*

BETTY MATHIESON MASSE, *Assistant to the Bursar.*

CAREER COUNSELING AND PLACEMENT
(Banister Hall)

SAMUEL APPLETON LADD, JR., B.S. (*Bowdoin*), *Director of Career Counseling and Placement.*

CENTRALIZED DINING SERVICE

MYRON LEWIS CROWE, A.B. (*Michigan State*), *Director.*

ORMAN EWING HINES, *Food Service Manager.*

DELMAR EDWARD CURTIS, *Purchasing Agent.*

DUDLEY COE INFIRMARY

DANIEL FRANCIS HANLEY, A.B. (*Bowdoin*), M.D. (*Columbia*), *College Physician.*

JOHN BULLOCK ANDERSON, A.B. (*Bowdoin*), M.D. (*Tufts*), *Associate Physician.*

COLLEGE COUNSELOR AND DIRECTOR OF
THE COUNSELING OFFICE

DONALD EARL COWING, B.S., A.M., Ed.D. (*Wayne State*).

COMPUTING CENTER
(Hubbard Hall)

MYRON WHIPPLE CURTIS, A.B. (*Bowdoin*), A.M. (*University of California, Los Angeles*), *Director.*

MARK INGWALD NELSEN, A.B. (*University of California, Berkeley*), *Programmer Analyst.*

DEVELOPMENT OFFICE
(Hawthorne-Longfellow Hall)

ASHER DEAN ABELON, A.B. (*Brown*), *Assistant to the Vice President for Development.* (On leave of absence.)

RICHARD GRAVES ARMS, A.B. (*Amherst*), A.M. (*Harvard*), *Assistant to the Vice President for Development.*

NANCY IRELAND BANNISTER, *Assistant to the Vice President for Development.*

VIRGINIA STANFORTH STUART, B.S. (*Columbia*), *Assistant to the Vice President for Development.*

GLENN KEVILLE RICHARDS, A.B. (*Bowdoin*), *Alumni Secretary.*

ROBERT MELVIN CROSS, A.B. (*Bowdoin*), A.M. (*Harvard*), *Secretary of the Alumni Fund.*

JOSEPH DAVID KAMIN, B.S. (*Boston University*), *Director of News Services.*
Getchell House

JOHN DAVID O'HERN, A.B. (*Stonehill*), *Assistant Director of News Services.*
Getchell House

EDWARD BORN, A.B. (*Bowdoin*), A.M. (*Michigan*), *College Editor and Editor of the Bowdoin Alumnus.*

GROUND AND BUILDINGS
(Rhodes Hall)

JOHN FRANCIS BRUSH, B.S. (*Gorham*), *Superintendent.*

ANDRÉ ROLLAND WARREN, B.B.A. (*Levis*), *Assistant Superintendent.*

WILLIAM HENRY COOMBS, *Assistant to the Superintendent.*

RALPH JETHRO ALLEN, B.S. in B.A. (*New Hampshire*), *Assistant to the Superintendent.*

CARLETON CLARK YOUNG, A.B. (*Hamilton*), *College Forester.*
24 College Street

HAWTHORNE-LONGFELLOW LIBRARY

Arthur Monke, A.B. (*Gustavus Adolphus*), M.S. in L.S. (*Columbia*),
Librarian.

Officers of Administration

Mary Margaret Benson, A.B., M.L.S. (*University of California, Berkeley*), *Cataloger*.

Edward Stanton Cohen, B.S. (*Pennsylvania*), M.A. in L.S. (*Emory*), *Assistant Librarian and Documents Librarian*.

Joseph Jensen Derbyshire, A.B., A.M. (*Utah*), M.L. (*University of Washington*), *Head, Catalog Department*.

John Bright Ladley, Jr., B.S. (*Pittsburgh*), M.L.S. (*Carnegie Institute of Technology*), *Reference Librarian*.

Richard Burton Reed, A.B. (*Bucknell*), A.M. (*William and Mary*), Ph.D. (*Wisconsin*), *Special Collections Librarian*.

Shirley A. Reuter, A.B. (*New Hampshire*), M.L.S. (*Syracuse*), *Acquisitions Librarian*.

Donna Glee Sciascia, A.B. (*Emporia*), M.A. in L.S. (*Denver*), *Cataloger*.

Elda Gallison Tagaki, B.S., A.M. (*Maine*), A.M., M.A. in L.S. (*Michigan*), *Cataloger*.

Aaron Weissman, A.B. (*City College of New York*), A.M., M.S. in L.S. (*Columbia*), *Head, Circulation Department*.

MOULTON UNION

HARRY KNIGHT WARREN, A.B. (*Pennsylvania*), *Director*.

ALMOZA CEDIA LECLERC, *Bookstore Manager*.

MUSEUM OF ART

RICHARD VINCENT WEST, A.B. (*University of California, Santa Barbara*), A.M. (*University of California, Berkeley*), *Director and Curator*.

PHILIP CONWAY BEAM, A.B., A.M., Ph.D. (*Harvard*), *Curator of the Winslow Homer Collection*.

PEARY-MacMILLAN ARCTIC MUSEUM

(Hubbard Hall)

MIRIAM LOOK MacMILLAN, *Curator*.

PHYSICAL EDUCATION
(Morrell Gymnasium)

DANIEL KEMP STUCKEY, A.B. (*Princeton*), A.M. (*Harvard*), *Director of Athletics.*

WILLIAM EDWARD MORGAN, *Business Manager.*

PUBLIC AFFAIRS RESEARCH CENTER
(Hubbard Hall)

CARL EDWARD VEAZIE, A.B. (*Whitman*), M.B.A. (*Columbia*), *Director.*

ROTC PROGRAM
(Rhodes Hall)

RALPH BARTLETT OSGOOD, JR., B.S. (*Massachusetts*), Lieutenant Colonel, U.S.A., *Director.*

RICHARD BALDWIN HOOGSTRATEN, B.S. (*Lehigh*), Major, U.S.A., *Assistant Director.*

WILBUR PRESCOTT SPENCER, JR., A.B. (*Maine*), Major, U.S.A., *Assistant Director.*

SENIOR CENTER

WILLIAM BOLLING WHITESIDE, A.B. (*Amherst*), A.M., Ph.D. (*Harvard*), *Director.*

RICHARD SPARROW PULSIFER, A.B. (*Bowdoin*), *Administrative Assistant.*

SUMMER PROGRAMS

HARRY KNIGHT WARREN, A.B. (*Pennsylvania*), *Coordinator.*

UPWARD BOUND
(Ham House)

PAUL VERNON HAZELTON, B.S. (*Bowdoin*), Ed.M. (*Harvard*), *Project Director.*

DORIS CHARRIER VLADIMIROFF, A.B. (*Duke*), A.M. (*Middlebury*), *Executive Director.*

College Campus and Buildings

BOWDOIN College is located in the town of Brunswick, Maine, which was first settled in 1628 on the banks of the Androscoggin River, a few miles from the shores of Casco Bay. The traveling time by car from Boston is about two and one-half hours, and from New York about eight hours. The present campus, which was originally a sandy plain covered with blueberries and pines, is now a spacious tract of 110 acres containing more than thirty buildings and several playing fields.

Massachusetts Hall is the oldest building on the campus, having been completed in 1802. For several years it housed the students, and all classes were held there. In late years, until the fall of 1965, the president and some of the other college officials had their offices in this historic old building. It is now used for offices for some of the members of the Faculty.

The work of the College has its heart and center in the Nathaniel Hawthorne-Henry Wadsworth Longfellow Library, which contains the accumulations of over a century and a half. The nucleus of its more than 400,000 volumes is the treasured collection of books and pamphlets bequeathed by the Honorable James Bowdoin, the earliest patron of the College. These "Bowdoin Books," rich in French literature, American history, and mineralogy, were supplemented by the same generous benefactor's gift of his art collection containing many paintings of old and modern masters. Among the paintings are the portraits of Thomas Jefferson and James Madison by Gilbert Stuart, and a notable collection of portraits by the distinguished colonial artist, Robert Feke. These and other treasures are exhibited in the Walker Art Building. The resources of the Library and Museum are described elsewhere in the catalogue.

College classes are held in Memorial Hall, Banister Hall, Adams Hall, Hubbard Hall, the Searles Science Building, Sills Hall, Smith Auditorium, Cleaveland and Gibson halls, the Walker Art Building, the Senior Center, and the Afro-American Center. When students are not engaged in the library, laboratories, and recitation rooms, they have at their disposal many admirably equipped facilities for recreation. These resources include the Moulton Union, the Morrell Gymnasium, the Sargent Gymnasium, the Hyde Athletic Building, the Curtis Pool, the Arena, and the playing fields of the College. Another valuable adjunct for the health of the student body is the Dudley Coe Memorial Infirmary; its facilities and the services of the college physician are available to all students.



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|-------------------------------------|--|------------------------------|----------------------|-------------------------|--------------------------|-------------------------|---------------------------------|
| 1. Massachusetts Hall | 5. Gibson Hall | 9. Senior Center | 14. Maine Hall | 19. Cleveland Hall | 24. Arena | 29. Pickard Field | 34. Grounds and Buildings Dept. |
| 2. Pickard Theater in Memorial Hall | 6. Hawthorne-Longfellow Library and Hall | 10. Coleman Hall | 15. Winthrop Hall | 20. Heating Plant | 25. Curtis Swimming Pool | 30. Pickard Field House | 35. Getchell House |
| 3. Searles Science Bldg. | 7. Hubbard Hall | 11. Hyde Hall | 16. Adams Hall | 21. Sargent Gymnasium | 26. Dudley Coe Infirmary | 31. President's House | 36. Ham House |
| 4. Walker Art Bldg. | 8. Afro-American Center | 12. Appleton Hall | 17. Sills Hall | 22. Morrell Gymnasium | 27. Moore Hall | 32. Alumni House | 37. First Parish Church |
| | | 13. Chapel and Banister Hall | 18. Smith Auditorium | 23. Hyde Athletic Bldg. | 28. Moulton Union | 33. Rhodes Hall | |

THE COLLEGE BUILDINGS

MASSACHUSETTS HALL, planned in 1798 and completed in 1802, was the first college building erected. In 1936 the entire building was remodeled, and until 1965 it provided quarters for some of the administrative officers. In 1941, through a gift of Frank Herbert Swan, LL.D., of the Class of 1898, the third floor was restored and furnished as a Faculty Room. The building is now used for faculty offices.

MAINE HALL (1808), known originally as "the College," and named later to commemorate the admission of Maine to the Union; WINTHROP HALL (1822), named in honor of Governor John Winthrop of the Massachusetts Bay Colony; APPLETON HALL (1843), named in honor of the second president of the College; HYDE HALL (1917), named in honor of the seventh president of the College and built from contributions from many of the alumni; MOORE HALL (1941), named in honor of his father by the donor, Hoyt Augustus Moore, LL.D., of the Class of 1895; and COLEMAN HALL (1958), named in honor of the family of the donor, Jane Coleman Pickard (Mrs. Frederick W. Pickard), are the six campus dormitories. In 1964-1966 the interiors of Winthrop, Maine, and Appleton halls were completely renovated.

THE CHAPEL, a Romanesque church of undressed granite, designed by Richard Upjohn, was built during the decade from 1845 to 1855 from funds received from the Bowdoin estate. The façade is distinguished by twin towers and spires which rise to the height of 120 feet. The interior resembles the plan of English college chapels, with a broad central aisle from either side of which rise the ranges of seats. The lofty walls are decorated with twelve large paintings. The Chapel stands as a monument to President Leonard Woods, fourth president of the College, under whose personal direction it was erected. The flags, added in recent years, are of the original thirteen colonies plus Maine, which was a part of Massachusetts at the time of the founding of the College in 1794. A set of eleven chimes, the gift of William Martin Payson, of the Class of 1874, was installed in the southwest tower in 1924. In the Chapel is an organ given in 1927 by Cyrus H. K. Curtis, LL.D. That portion of the chapel building which formerly housed the reading rooms and stack space of the college library was named BANISTER HALL in 1850 in recognition of the gifts of the Honorable William Banister. It now contains the Office of Career Counseling and

Placement and the classrooms and laboratories of the Department of Psychology.

SETH ADAMS HALL was erected in 1860-1861. It was named in honor of Seth Adams, Esq., of Boston, who contributed liberally towards its construction. The building stands west of the Presidents' Gateway. From 1862 until 1921 it housed the classrooms of the Medical School of Maine. It is now used for lectures, recitations, conferences, and faculty offices.

MEMORIAL HALL, built in 1868, is a structure of local granite in the Gothic style. It is a memorial to the graduates and students of the College who served in the Civil War whose names and ranks are inscribed on bronze plaques in the lobby. The lower story contains classrooms and an experimental theater. The entire interior was rebuilt in 1954-1955 to house the Pickard Theater, one of the gifts of Frederick William Pickard, LL.D., of the Class of 1894.

THE PRESIDENT'S HOUSE, built in 1860 by Captain Francis C. Jordan, originally stood on the lot at 77 Federal Street. It was purchased by the College in 1867 and was occupied by President Harris until 1871. The house was purchased by Peleg W. Chandler, and in 1874 he had it moved to its present location at the corner of Federal and Bath streets. At a later date the College reacquired the house, and shortly after President Hyde assumed office in 1885, it became his official residence. In 1926 the ballroom was added, and in 1952 the house was modernized and partially furnished by the College.

THE OBSERVATORY was erected in 1890-1891 with funds given by John Taylor, Esq., of Fairbury, Illinois. It stands on the southeast corner of Pickard Field and is reached from the Harpswell Road. In 1965 it was renovated and a new telescope was installed.

THE WALKER ART BUILDING, designed by McKim, Mead & White, was erected in 1892-1894. It was given to the College by the Misses Harriet and Sophia Walker, of Waltham, Massachusetts, as a memorial to their uncle, Theophilus Wheeler Walker, of Boston, a cousin of President Woods. A bronze bulletin board in memory of Henry Edwin Andrews, A.M., of the Class of 1894, director of the museum, 1920-1939, is located in Sculpture Hall. The building is surrounded on three sides by a paved terrace with supporting walls and parapets of granite. Granite and bronze sculptures adorn the front wall.

THE MARY FRANCES SEARLES SCIENCE BUILDING, designed by Henry Vaughan, was built in 1894 and completely renovated and modernized in 1952. It was the gift of Edward F. Searles, Esq., in memory of his wife. With the Walker Art Building and Gibson Hall, it forms the western side of the quadrangle. The building contains lecture rooms, laboratories, and libraries of the Departments of Biology and Physics.

HUBBARD HALL, also designed by Henry Vaughan and erected in 1902-1903, was the gift of General Thomas H. Hubbard, LL.D., of the Class of 1857, and his wife, Sibyl Fahnstock Hubbard. For over sixty years, until the fall of 1965, it was the College Library. After suitable renovations it is now used for faculty offices, examination rooms, and the Department of Geology. Located in the basement is the Computing Center, which contains a PDP-10 time-sharing system. The laboratory is available to the entire college community and is directed by a member of the Faculty. The Peary-MacMillan Arctic Museum is located on the first floor, and the Susan Dwight Bliss Room for rare books and bindings remains on the second floor.

THE HUBBARD GRANDSTAND was given to the College in 1904 by General Thomas H. Hubbard, LL.D., of the Class of 1857. It is situated on WHITTIER FIELD, a tract of five acres, named in honor of Frank Nathaniel Whittier, M.D., of the Class of 1885, for many years director of the gymnasium, who was largely instrumental in its acquisition for varsity football and track in 1896. An electrically operated scoreboard, the gift of the widows of Harvey Dow Gibson, LL.D., of the Class of 1902, and Adriel Ulmer Bird, A.M., of the Class of 1916, was erected in 1960.

SARGENT GYMNASIUM AND GENERAL THOMAS WORCESTER HYDE ATHLETIC BUILDING were erected in 1912. The Gymnasium was built from contributions from many of the students and alumni, and named in honor of Dudley A. Sargent, M.D., Sc. D., of the Class of 1875; the Athletic Building was given by John Hyde, Esq., of Bath, in memory of his father, Thomas Worcester Hyde, A.M., of the Class of 1861. In 1965-1966 Sargent Gymnasium was altered and renovated to make it part of the comprehensive plan for the indoor athletic facilities of the College.

THE DUDLEY COE MEMORIAL INFIRMARY is a three-story brick building erected in 1916-1917. It was given by Thomas Upham Coe, M.D., of the Class of 1857, in memory of his son, and stands in the

pinetrees to the south of the Hyde Athletic Building. In 1957 it was enlarged through a gift by Agnes M. Shumway, A.M. (Mrs. Sherman N. Shumway). In 1962 it was licensed by the state as a private general hospital.

THE CURTIS SWIMMING POOL was given to the College in 1927 by Cyrus H. K. Curtis, LL.D. The Pool is housed in a separate wing attached to the Sargent Gymnasium; the Pool itself is of standard size, thirty by seventy-five feet, and is provided with every modern device for ensuring sanitation.

THE MOULTON UNION, designed by McKim, Mead & White, was built in 1927-1928. It was given and partially endowed by Augustus Freedom Moulton, LL.D., of the Class of 1873, as a social, recreational, and service center for the College. In 1964-1965, a two-story extension was added on the south and east sides of the building. The spacious main lounge and several smaller, intimate lounges and student activity areas are provided for general social purposes. The Union also contains the college reception, information, and scheduling center, the campus telephone switchboard, a bookstore, dining facilities, and a game room. The Union stands just outside the quadrangle opposite Appleton, Hyde, and Moore halls.

THE PICKARD FIELD HOUSE stands at the entrance of Pickard Field. It was given in 1937 by Frederick William Pickard, LL.D., of the Class of 1894, and Mrs. Pickard. The building contains a pleasant lounge as well as lockers and showers. PICKARD FIELD, a tract of sixty-six acres, was presented to the College by Mr. Pickard in 1926. In 1952 nine acres were added to the Field by purchase, making a total area of seventy-five acres, thirty of which are fully developed playing fields. The Field contains the varsity and freshman baseball diamonds, several spacious playing fields for football and soccer, and ten tennis courts.

RHODES HALL, formerly the Bath Street Primary School, was purchased from the Town of Brunswick by the College in 1946 to provide additional facilities for instruction and administration. The building was named to commemorate the fact that three pupils of the school later achieved distinction as Rhodes scholars at Oxford University. Here are the offices of the Department of Grounds and Buildings and the headquarters of the ROTC.

SILLS HALL AND SMITH AUDITORIUM, designed by McKim, Mead & White, were completed in the autumn of 1950. The main structure was made possible by the first appropriations from the Sesqui-

centennial Fund, and was named after the eighth president of the College, Kenneth Charles Morton Sills (1879-1954), of the Class of 1901; the wing, containing an auditorium seating 210 persons, was built by appropriation of the Francis, George, David, and Benjamin Smith Fund, bequeathed by Dudley E. Wolfe, of Rockland. A language laboratory and speech center are located in the wing. In 1968 a donor who wished to remain anonymous established the Constance and Albert Thayer Speech Center Fund to maintain the speech center. The Fund was named in honor of Albert R. Thayer, Harrison King McCann Professor of Oral Communication Emeritus, and his wife.

PARKER CLEAVELAND HALL, designed by McKim, Mead & White, was dedicated on June 6, 1952. The building was made possible by donors to the Sesquicentennial Fund. It houses the Department of Chemistry and bears the name of Parker Cleaveland, who taught chemistry and mineralogy at Bowdoin from 1805 to 1858, and was a pioneer in geological studies. Special gifts provided these facilities: The Kresge Laboratory of Physical Chemistry, The Wentworth Laboratory of Analytical Chemistry, The 1927 Room (a private laboratory), The Adams Lecture Room, The Burnett Room (a seminar room), and The Dana Laboratory of Organic Chemistry.

SILLS HALL, SMITH AUDITORIUM, AND PARKER CLEAVELAND HALL are mainly of brick and designed in a simple modern classical architectural style. Together they bound respectively the north and east sides of a quadrangle on the eastern boundary of the campus.

THE HARVEY DOW GIBSON HALL OF MUSIC, named for Harvey Dow Gibson, LL.D., of the Class of 1902, was dedicated in June 1954. Its construction was made possible by funds donated by Mrs. Harvey Dow Gibson; by Mrs. Gibson's daughter, Mrs. Whitney Bourne Choate; by the Manufacturers-Trust Company of New York; and by several friends of Mr. Gibson. Designed by McKim, Mead & White, the building contains soundproof class, rehearsal, and practice rooms, a recording room, several rooms for listening to records, offices, and the music library. The common room is richly paneled in carved walnut from the music salon designed in 1724 by Jean Lassurance (1695-1755) for the Hôtel de Sens in Paris.

THE HAM HOUSE, at 3 Bath Street, was for many years the residence of Roscoe J. Ham, L.H.D., George Taylor Files Professor of Modern Languages from 1921 to 1945. Acquired by the College in 1954, it houses the offices of Bowdoin Upward Bound and study-lounges which are used by Academic Year Institute students.

THE PICKARD THEATER IN MEMORIAL HALL, a gift of Frederick William Pickard, LL.D., of the Class of 1894, was dedicated in June 1955. The Theater, with comfortable seats for more than 600, contains a stage fifty-five feet wide and thirty feet deep; the space from the stage floor to the gridiron is forty-eight feet. The floor of the auditorium slopes to an orchestra pit, and under it are lounge and coat rooms. Over the auditorium is shop space for the construction and storage of scenery and stage properties.

THE GETCHELL HOUSE, located at 5 Bath Street, is diagonally opposite Adams Hall. A three-story frame building, it was given to the College in 1955 by Miss Gertrude Getchell, of Brunswick, and completely refurbished in 1956. It houses the offices of the News Services.

NEW MEADOWS RIVER SAILING BASIN. In 1955 the College purchased a cabin and section of shore front with a dock on the east side of the New Meadows River Basin, to provide facilities for the sailing team. The equipment includes five fiberglass dinghies and a power-driven crash boat.

THE HOCKEY ARENA was built in 1956 with contributions from alumni, students, and friends of the College. It contains seats for twenty-four hundred spectators and a regulation ice-hockey rink with a refrigerated surface two hundred feet long and eighty-five feet wide, as well as shower-bath and locker rooms, and a snack bar. It is located to the east of the Hyde Athletic Building; the entrance faces College Street. The Arena serves primarily the College's physical education activities, especially intramural and intercollegiate contests, and recreational skating for undergraduates.

THE JOHNSON HOUSE, named in memory of Professor Henry Johnson, Ph.D., of the Class of 1874, a distinguished member of the Bowdoin Faculty from 1877 to 1918, and Mrs. Johnson, is located at the corner of Maine and Boody streets across from the southwestern entrance to the campus. Bequeathed to the College in 1957, this commodious residence is now used as the home of the dean of the College.

THE CHASE BARN CHAMBER, named in memory of Professor Stanley Perkins Chase, Ph.D., of the Class of 1905, Henry Leland Chapman Professor of English Literature from 1925 to 1951, and Mrs. Chase, is a handsome room located in the ell of the JOHNSON HOUSE. Designed by Felix Burton '07, in the Elizabethan style, the Barn Chamber is heavily timbered, contains a small stage, an impressive

fireplace, and houses many of the books from the Chase library. The Chamber is used for small classes, seminars, and conferences.

THE LITTLE-MITCHELL HOUSE, at 6-8 College Street, houses the Afro-American Center. The Mitchell House was named in honor of Professor Wilmot Brookings Mitchell, L.H.D., of the Class of 1890, Edward Little Professor of Rhetoric and Oratory from 1893 to 1939. It was given by Professor Mitchell in 1961. The Little House, the 8 College Street side of the connected buildings, was acquired by the College in 1962.

THE ALUMNI HOUSE, at 83 Federal Street, next to the President's House, was bequeathed to the College in 1933 on the death of Professor Marshall Perley Cram, Ph.D., of the Class of 1904. Renovated in 1962 and maintained by the College, it is the center of alumni activities at Bowdoin and contains lounges, rest rooms, and other facilities for the use of visiting alumni and their families and guests. The Ladies' Lounge, located on the second floor, was presented by the Society of Bowdoin Women in 1965.

THE SENIOR CENTER, designed by Hugh Stubbins and Associates, Inc., was completed in the autumn of 1964. Built from funds contributed during the Capital Campaign, it consists of three buildings, each specifically designed to support and reinforce the educational objectives of the program for the senior year. The main building, a sixteen-story tower, includes living and study quarters, seminar and conference rooms, lounges, accommodations for visitors, and the director's office. The entire first floor of the tower has been named in memory and honor of the late Henry Quinby Hawes, A.M., of the Class of 1910, and Mrs. Hawes. WENTWORTH HALL, named in memory of Walter V. Wentworth, Sc.D., of the Class of 1886, an overseer of the College from 1929 to 1958, is a two-story building adjacent and connected to the tower. It contains the dining room, main lounge, and other rooms for instructional, social, and cultural activities. CHAMBERLAIN HALL, named in memory of General Joshua Lawrence Chamberlain, LL.D., of the Class of 1852, Civil War hero, governor of Maine, and president of Bowdoin from 1871 to 1883, contains apartments for the director and other participants in the program and a small banquet room for use on special occasions.

THE MALCOLM E. MORRELL GYMNASIUM, also designed by Hugh Stubbins and Associates, Inc., is a 50,000-square-foot building connected to Sargent Gymnasium. Built in 1964-1965 from funds contributed during the Capital Campaign, it was in June 1969 named

in memory of Malcolm Elmer Morrell, of the Class of 1924, Bowdoin's director of athletics from 1928 to 1967. The Gymnasium contains a modern basketball court with seats for about 2,500 persons, four visiting team rooms, eleven squash courts, offices for the director of athletics and his staff, and other rooms for physical education purposes.

THE NATHANIEL HAWTHORNE-HENRY WADSWORTH LONGFELLOW LIBRARY, designed by Walker O. Cain and Associates, of New York, was built in 1964-1965 from funds contributed during the Capital Campaign. It was named after two of Bowdoin's literary giants, both members of the Class of 1825. It houses the principal portions of the library of the College and—in its western end, named HAWTHORNE-LONGFELLOW HALL—most of the general administrative offices of the College. Utilizing the latest concepts in library design, the Library was planned to complement the older buildings of the College and, at the same time, be compatible with the newer architectural concept of the Senior Center.

THE HASKELL HOUSE, at 72 Federal Street, was given to the College by Henry C. Haskell, A.B., B.S., of the Class of 1918, and Mrs. Haskell in memory of Alaric W. Haskell, Sc.D., the dean of Maine dentists, who practiced his profession in Brunswick from 1888 until his retirement in 1955. A two-and-a-half-story colonial home, it was Dr. Haskell's residence for many years. It is the residence of the dean of the Faculty.

OTHER MEMORIALS

THE THORNDIKE OAK, standing near the center of the campus, is dedicated to the memory of George Thorndike, of the Class of 1806, who planted the tree in 1802 after the first chapel exercises.

THE CLASS OF 1875 GATEWAY was erected in 1901 as a memorial to members of the Class. It forms the Maine Street entrance of the Class of 1895 Path.

THE CLASS OF 1878 GATEWAY, erected in 1903, is a memorial to members of the Class. It is on Bath Street between Memorial Hall and the First Parish Church.

THE WARREN EASTMAN ROBINSON GATEWAY, erected in 1920 at the southwestern entrance to the campus, is a memorial to Lieutenant Warren Eastman Robinson, of the Class of 1910, who lost his life in the service of his country.

THE FRANKLIN CLEMENT ROBINSON GATEWAY, erected in 1923, is a memorial to Franklin Clement Robinson, LL.D., of the Class of 1873, for thirty-six years a teacher at Bowdoin College, and to his wife, Ella Maria Tucker Robinson. The gateway forms the north-western entrance to the campus.

THE CLASS OF 1898 BULLETIN BOARD, erected in 1924 near the Chapel, is a memorial to members of the Class. It is made of bronze, is double-faced and illuminated.

THE CLASS OF 1903 GATEWAY, erected in 1928, is a memorial to members of the Class. It forms the main entrance to the Whittier Athletic Field.

THE MEMORIAL FLAGPOLE, designed by McKim, Mead & White, was erected in 1930 with funds given by the alumni in memory of the twenty-nine Bowdoin men who lost their lives in World War I. The Honor Roll is engraved on the mammoth granite base surmounted by ornamental bronze. The flagpole stands in the south-western corner of the campus between Hubbard Hall, Walker Art Building, and Gibson Hall.

THE PRESIDENTS' GATEWAY, erected in 1932, is a gift of the Class of 1907 in memory of William DeWitt Hyde, D.D., LL.D., president of the College from 1885 to 1917, and "as a mark of the enduring regard of all Bowdoin men for the leadership of their Presidents." The gateway forms one of the northern entrances to the campus from Bath Street.

THE BOWDOIN POLAR BEAR, placed in 1937, is a memorial to members of the Class of 1912. The base and life-size statue were carved by Frederick George Richard Roth. The figure stands in front of the entrance to the Sargent Gymnasium.

THE HARRY HOWARD CLOUDMAN DRINKING FOUNTAIN, erected in 1938, is in memory of Harry Howard Cloudman, M.D., of the Class of 1901, one of the outstanding athletes at the turn of the century. It stands near the Sargent Gymnasium.

THE ALPHEUS SPRING PACKARD GATEWAY, erected in 1940 on College Street, is a memorial to Professor Alpheus Spring Packard, A.M., D.D., of the Class of 1816, a member of the Bowdoin Faculty from 1819 to 1884.

THE CLASS OF 1910 PATH was laid in 1940 as a memorial to members of the Class. It extends from Bath Street to Coleman Hall, run-

ning parallel to the four dormitories and in front of the entrance to the Chapel.

THE CLASS OF 1895 PATH was laid in 1945 as a memorial to members of the Class. It extends from the Chapel to the Class of 1875 Gateway.

THE CLASS OF 1886 PATHWAYS are a network of walks laid in 1945 as a memorial to members of his Class through the generosity of Walter Vinton Wentworth, Sc.D. The pathways traverse an area lying north of Massachusetts Hall.

THE CLASS OF 1919 PATH, laid in 1945, is a memorial to members of the Class. It extends from the north entrance of Winthrop Hall, past the entrances to Massachusetts Hall and Memorial Hall, to the Franklin Clement Robinson Gateway.

THE CLASS OF 1916 PATH was laid in 1946 as a memorial to members of the Class. It extends from Massachusetts Hall to the Alpheus Spring Packard Gateway.

THE FRANK EDWARD WOODRUFF ROOM, in Sills Hall, is a memorial to Frank Edward Woodruff, A.M., a member of the Bowdoin Faculty from 1887 to 1922. The room was provided in 1951 through the generous bequest of Edith Salome Woodruff.

THE PEUCINIAN ROOM, built in 1951, is in a corner of the lower floor of Sills Hall. It is paneled in timber taken from the Bowdoin Pines. The motto of the Peucinian Society, *Pinos loquentes semper habemus*, is carved on a heavy timber above the fireplace. The fireplace and paneling are the gift of the Bowdoin Fathers Association in memory of Suzanne Young (1922-1948).

THE CLASS OF 1924 RADIO STATION (WBOR, "Bowdoin-on-Radio") was given by the Class of 1924 on the occasion of its twenty-fifth reunion. The station, installed in 1951 on the second floor of the Moulton Union, contains two broadcasting studios and a fully equipped control room, which are air-conditioned and protected against sound disturbance by walls of acoustical tiling.

THE ELIJAH KELLOGG TREE, a large pine dedicated to the memory of the Reverend Elijah Kellogg, A.M., of the Class of 1840, stands near the corner of Bath Street and Sills Drive.

THE GARDNER BENCH, near the Hawthorne-Longfellow Library, is dedicated to the memory of William Alexander Gardner, of the

Class of 1881, and was presented to the College by Mrs. Gardner in June 1954.

THE CHASE MEMORIAL LAMPS, dedicated to the memory of Stanley Perkins Chase, Ph.D., of the Class of 1905, Henry Leland Chapman Professor of English Literature (1925-1951), stand on the Moulton Union terrace. They were presented to the College by Mrs. Chase in June 1954.

THE DANE FLAGPOLE, in honor of Francis Smith Dane, of the Class of 1896, stands in the northwest corner of Whittier Field. The gift of Mrs. Annie Lawrence E. Dane and a member of her family, the flagpole was placed in 1954 in recognition of Mr. Dane's efforts as an undergraduate to acquire an adequate playing field for the College.

THE SIMPSON MEMORIAL SOUND SYSTEM, the gift of Scott Clement Ward Simpson, of the Class of 1903, and Mrs. Simpson, is dedicated to the memory of their parents. The system, including a high-fidelity record player and other teaching aids in music, was installed in Gibson Hall in 1954. A fund for its maintenance was established by Mr. and Mrs. Simpson in 1955.

THE JAMES FREDERICK DUDLEY CLASSROOM in Banister Hall was renovated and furnished in 1954 as a memorial to James F. Dudley, of the Class of 1865, by the bequest of Nettie S. Dudley.

THE CATLIN PATH, extending from the Warren Eastman Robinson Gateway to Hubbard Hall, was laid in 1954 through the generous gift of Warren Benjamin Catlin, Ph.D., Fayerweather Professor of Economics and Sociology.

THE SHUMWAY TREE, a Rocky Mountain fir in memory of Sherman Nelson Shumway, A.M., LL.B., of the Class of 1917, generous benefactor and an overseer of the College (1927-1954), was replanted on the campus in front of Hawthorne-Longfellow Hall and dedicated in June 1955.

THE TURNER TREE, a maple in memory of Perley Smith Turner, A.M., of the Class of 1919, professor of education at Bowdoin (1946-1956), was replanted on the campus east of Smith Auditorium by classmates and friends and dedicated in June 1957.

THE PICKARD TREES, twelve hawthorns in memory of Jane Coleman Pickard (Mrs. Frederick William Pickard), donor of Coleman Hall and co-donor of the Pickard Field House, were replanted

around Coleman Hall by the Society of Bowdoin Women and dedicated in June 1959.

THE CLASS OF 1909 ORGAN, an electronic instrument for use in the Pickard Theater, was presented by the Class of 1909 on the occasion of its fiftieth anniversary and dedicated in June 1960. A fund with a current balance of \$3,166, given at the same time, is for the maintenance of the organ and for the support of musical education in the College.

LITTLE PONDS WILDLIFE SANCTUARY is the gift of Mrs. Harold Trowbridge Pulsifer in memory of her husband, Harold Trowbridge Pulsifer, and Sheldon Ware, a neighbor. Located at Bethel Point, East Harpswell, and given in 1961, this tract of several acres includes a meadow, pond, woodland, and shore frontage. It is used for the study and conservation of wildlife and is the site of the Bowdoin College Marine Laboratory.

THE CLASS OF 1937 LOUNGE, located in the Alumni House, was presented by the Class of 1937 on the occasion of its twenty-fifth reunion in 1962. It is a large, informal, and rustic room, with pine furniture, old pictures of Bowdoin and of Brunswick, and a large hewn granite fireplace. The lounge was given in memory of Harold L. Cross, Jr., David T. Deane, J. Donald Dyer, and Maxwell A. Eaton, who gave their lives in the service of their country during World War II.

THE CECIL CLEOPHUS McLAUGHLIN STUDY, in Chamberlain Hall, is a memorial to Cecil Cleophus McLaughlin, M.D., of the Class of 1923. The study was the gift of his wife, and is for the use of the director of the Senior Center.

THE HUTCHINSON LOUNGE AND HUTCHINSON TERRACE, in Wentworth Hall, are memorials to Charles Lyman Hutchinson, A.B., of the Class of 1890, a prominent lawyer in Portland. They are on the south side of the building between the main dining room and lounge.

THE WILMOT BROOKINGS MITCHELL LOUNGE, on the second floor of Wentworth Hall, is a memorial to Wilmot Brookings Mitchell, Litt.D., L.H.D., of the Class of 1890, a beloved teacher of English for almost fifty years.

THE HARRISON KING McCANN MUSIC LOUNGE, on the sixteenth floor of the tower of the Senior Center, is a memorial to Harrison King McCann, A.M., of the Class of 1902, for thirty years an overseer of the College.

THE STUART FRANKLIN BROWN LOBBY, in the Hawthorne-Longfellow Library, is a memorial to Stuart Franklin Brown, of the Class of 1910, and was the gift of Mrs. Brown.

THE CLASS OF 1914 LIBRARIAN'S OFFICE, in the Hawthorne-Longfellow Library, is in honor of the members of the Class of 1914, which made a specific gift for this purpose. The office is on the first floor to the left of the entrance.

THE CLASS OF 1938 NEWSPAPER ROOM, in the Hawthorne-Longfellow Library, is in honor of the members of the Class of 1938. The room is on the first floor to the right of the entrance.

THE WILLIAM JOHN CURTIS 1875 ROOM, in the Hawthorne-Longfellow Library, is a memorial to William John Curtis, LL.D., of the Class of 1875, for over twenty-five years an overseer and trustee of the College, and a generous benefactor always in the name of his Class. The room, in the northeast corner of the first floor, is used for current periodicals.

THE GERALD GARDNER WILDER CATALOGUING ROOM, in the Hawthorne-Longfellow Library, is a memorial to Gerald Gardner Wilder, A.M., of the Class of 1904, librarian of the College from 1916 to 1944. The room is in the southeast area on the first floor.

THE MELVILLE WESTON FULLER READING ROOM, in the Hawthorne-Longfellow Library, is a memorial to Melville Weston Fuller, LL.D., of the Class of 1853, chief justice of the United States Supreme Court from 1888 to 1910, and an overseer and trustee of the College from 1875 to 1910. The room occupies the southern bay on the first floor.

THE GEORGE THOMAS LITTLE BIBLIOGRAPHY AND CARD CATALOGUE AREA, in the Hawthorne-Longfellow Library, is a memorial to George Thomas Little, Litt.D., of the Class of 1877, librarian of the College from 1885 to 1915. The area occupies the center portion of the first floor.

THE ROBERT PETER TRISTRAM COFFIN READING ROOM, in the Hawthorne-Longfellow Library, is in memory of Robert Peter Tristram Coffin, Litt.D., of the Class of 1915, a distinguished author, poet, and professor. The room was the gift of the Class of 1915 on the occasion of its fiftieth reunion, and occupies the northern bay on the first floor.

THE FRANKLIN PIERCE READING ROOM, in the Hawthorne-Longfellow Library, is in memory of Franklin Pierce, LL.D., of the Class

of 1824, the fourteenth president of the United States. This informal reading room is at the east end of the second floor.

THE HAROLD LEE BERRY SPECIAL COLLECTIONS SUITE, in the Hawthorne-Longfellow Library, is in memory of Harold Lee Berry, A.M., of the Class of 1901, for nearly forty years an overseer and trustee of the College, and generous benefactor of the College. The suite comprises several rooms in the northeast area of the third floor.

THE DEAN PAUL NIXON LOUNGE-CONFERENCE ROOM, in the Hawthorne-Longfellow Library, is a memorial to Paul Nixon, L.H.D., LL.D., for over forty years a teacher of Latin and dean of the College from 1918 to 1947. The room is on the southeast corner of the third floor.

THE WILLIAM PITT FESSENDEN CONFERENCE ROOM, in Hawthorne-Longfellow Hall, is a memorial to William Pitt Fessenden, LL.D., of the Class of 1823, United States senator 1854-1864, 1865-1869; United States secretary of the treasury 1864-1865; and overseer and trustee of the College from 1843 to 1869. The room is on the second floor, near the offices of the president and deans.

THE MAGEE TRAINING ROOM, in the Morrell Gymnasium, is a memorial to John Joseph Magee, coach, trainer, and director of track and field athletics from 1913 to 1955.

THE COLBATH ROOM, in the Morrell Gymnasium, is a memorial to Henry Jewett Colbath, A.B., of the Class of 1910, an outstanding athlete, and dedicated teacher and coach.

THE MORRELL OFFICE, in the Malcolm E. Morrell Gymnasium, was given by members of the Class of 1924 in honor of their classmate, Malcolm Elmer Morrell, B.S., director of athletics from 1928 to 1967. It is the office of the director of athletics.

THE CLASS OF 1922 FOUNTAIN, between Hawthorne-Longfellow Library and Hubbard Hall, was constructed in 1968. It is the gift of Mrs. John C. Pickard of Wilmington, Del., in honor of her husband's class. The Fountain was designed by André R. Warren, assistant superintendent of grounds and buildings, and was constructed by workmen of the Department of Grounds and Buildings.

THE CLASS OF 1929 ELECTRONIC CHIMES SYSTEM, for automation of the Chapel chimes, was presented by the Class of 1929 on the occasion of its fortieth reunion. A fund for maintenance of the system was established at the same time.

General Information

TERMS AND VACATIONS: The College holds two sessions each year, beginning in September and January. The dates of the semesters and the vacation periods are indicated on the College Calendar on pages vi-viii.

REGISTRATION AND ENROLLMENT: All students are required to register at the opening of each semester in accordance with schedules posted at the College and mailed to students registering for the first time.

OFFICES AND OFFICE HOURS: The Offices of General Administration, the Admissions Office, the Business Office, and the Development Office are located in Hawthorne-Longfellow Hall, the west end of the Nathaniel Hawthorne-Henry Wadsworth Longfellow Library. The Office of the College Counselor is in the Moulton Union, the Office of Career Counseling and Placement is in Banister Hall (North), and the Department of Grounds and Buildings is in Rhodes Hall.

In general, the administrative offices of the College are open from 8:30 to 5:00 Monday through Friday.

TELEPHONE SWITCHBOARD: The College has a central telephone switchboard located in the Moulton Union. All college phones are connected to this switchboard. The number is 207-725-8731.

COLLEGE BILLS AND FEES: Before the opening of the fall semester a statement covering tuition, room rent, board, and fees for the year will be sent to each student. If this statement should be sent to someone other than the student, a request in writing to do so should be made to the Business Office.

Charges for the year may be paid in two equal payments to be made not later than September 1 and January 15.

Students whose term bills are not paid by September 1 or January 15 may not register or attend classes except under special circumstances and with approval of the Dean's Office. Bills incurred during the term must be paid when due. Students with unpaid bills are not eligible for academic credit, transcripts, or degrees. Special problems should be discussed with the dean of students or the director of student aid.

TUITION: The tuition fee for the 1970-1971 academic year is \$1,275 each semester or \$2,550 for the year. Any student completing the number of courses required for the degree in less than eight

semesters must pay tuition for eight semesters, except that the dean of the College is authorized to waive the requirements in such cases where the factors of advanced placement, or junior year abroad, or exchange or transfer status, or similar special circumstances exist. Work taken at other institutions to make up deficiencies in scholarship at Bowdoin shall not relieve the student of the obligation to pay tuition covering eight full semesters at Bowdoin College.

There are opportunities at Bowdoin to receive financial aid in meeting the charge for tuition. Detailed information about scholarships, loans, and other financial aid may be found on pages 49-76.

COLLEGE ROOMS AND BOARD: Freshmen are assigned rooms by the Admissions Office but may indicate by letter to it their preference in the matter of roommates. Sophomores and juniors apply for rooms to the assistant dean of students. Seniors are assigned rooms in the Senior Center by the director of the Senior Center. An applicant may indicate with whom he wishes to share a room, and the College will honor this preference whenever possible. The suites in the college dormitories consist of a study and bedroom which are provided with essential furniture. Students should furnish blankets and pillows; the College furnishes bed linen and towels. College property is not to be removed from the building or from the room in which it belongs; occupants are held responsible for any damage to their rooms. Room rent is \$500 a year, and board is \$650 a year. These charges are the same regardless of whether a student lives in a college or fraternity residence or whether he eats at the Union, the Senior Center, or a fraternity. Every student pays these charges unless he has established residence with his family or is married and living with his wife or has been excused by the dean of students.

OTHER COLLEGE CHARGES: All damage done to the buildings or other property of the College by persons unknown may be assessed equally on all the undergraduates. The College collects, in each academic year, student activities fees amounting to \$75. A fee of \$10 each semester for psychological counseling service is charged each regularly enrolled undergraduate student. The cost of tuition, board, room, and fees amounts to about \$1,900 for the semester. To these items must be added the cost of textbooks, personal expenses (including travel), and fraternity expenses for members of these organizations.

REFUNDS: Refunds to students leaving college during the course of a semester will not be made unless for exceptional reasons. Any

refund made will be in accordance with the schedule posted by the bursar of the College.

MEDICAL ATTENDANCE: The facilities of the Dudley Coe Memorial Infirmary (licensed as a private general hospital) and the services of the college physician are available to all students. If ill, students should immediately report to the College Infirmary.

To cover costs of treatment and care during the college year, in the Infirmary or elsewhere, each student is required to have adequate health and accident insurance. This must be purchased through the College (the group rate is \$28 per semester in 1970-1971), unless a student is covered otherwise by adequate health insurance certified by his parent or guardian at the time possible exemption from this requirement is requested. Coverage may be extended through the summer vacation by payment of an extra premium of \$18. Applications for the summer coverage are available at the Bursar's Office.

MOTOR VEHICLES: All motor vehicles, including motorcycles and motor scooters, must be properly registered at the Dean of Students' Office. A registration fee of \$5 per semester is charged to all students registering a motor vehicle. Failure to register a vehicle will result in a fine of \$25. Adequate liability insurance is required.

THE NEW ENGLAND ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS accredits schools and colleges in the six New England states. Membership in one of the six regional accrediting associations in the United States indicates that the school or college has been carefully evaluated and found to meet standards agreed upon by qualified educators. Colleges support the efforts of public school and community officials to have their secondary school meet the standards of membership.

STATISTICS: As of June 1970, 20,314 students have been matriculated at Bowdoin College, and 14,534 degrees in course have been awarded. In addition, earned master's degrees have been awarded to 173 postgraduate students. Living alumni include 7,373 graduates, 2,009 nongraduates, 30 medical graduates, 105 honorary graduates, and 172 graduates in the special postgraduate program.

Admission to the College

ONE can analyze the profile of Bowdoin's most recent class and make a rough prediction of a particular student's chances for admission to the next class. Approximately 65 percent of those admitted will have graduated from a public school, and the large majority will have ranked in the upper fifth of their graduating class. Well over half of the independent school graduates will have been in the upper third of their class. The typical entering freshman (although a number of exceptions could be cited) will have had four years of English, three or four years of a foreign language, mathematics through trigonometry, two or three years of laboratory sciences, and history. But helpful as statistics can be in revealing the nature of a class, it would be wrong to assume that they reveal the whole story of who is admitted.

To be certain, Bowdoin is primarily interested in the strong student. It is interested in the person who is intellectually inclined and is putting his talents to good use. But "drive" and "thirst" are perhaps closer to the mark in describing what the College is seeking. Bowdoin's decision to make College Board Tests optional (announced in January 1970) is evidence that the College feels high aptitude is less important than a keen sense of involvement in the world of ideas. The true student picks the most demanding courses, creates independent projects, and seeks to learn beyond what is required. Thus, tests and grades are only part of the story in judging the student. Teachers' and counselors' reports and samples of the student's writing and ideas often prove more valuable than test scores in revealing attitude, determination, and creativity. Bowdoin's appraisal of the student is partly an analysis of grades and scores, but largely an analysis of attitude and desire.

Bowdoin is seeking a well-rounded class of individuals who are proud of their individuality. In the extracurricular realm, the College is looking for accomplishment and depth in areas of particular talent rather than surface involvement in a wealth of activities. Bowdoin seeks the exceptional social conscience, the exceptional writer, the exceptional musician, the exceptional athlete—people who have demonstrated sufficient discipline to become accomplished in an activity which will benefit not only the college community but also general society thereafter.

To create a spirited and diverse community, Bowdoin is seeking a classful of differences. Proud of its tradition in educating Maine and New England boys, Bowdoin seeks to balance their represen-

tation with students from across the nation and the world. Those from the suburbs remain most welcome, but Bowdoin is actively seeking to make their college experience more vital by introducing more students from the inner-city and the ghetto.

In summary, Bowdoin is selecting a class of students who share certain characteristics: drive, a generous attitude, and a genuine desire to learn. On the other hand, Bowdoin seeks a class of differences: students with different talents, of differing backgrounds, from different places, and with different points of view. The resulting class, the College hopes, is a stimulating set of individuals with a common pursuit: education and application.

APPLICATION AND ADMISSION PROCEDURES

EARLY DECISION: Early Decision is a plan whereby a candidate, if he is certain of his first-choice college, can attempt to resolve the problem of college admission early in the senior year. Bowdoin is in agreement with other colleges regarding the general ground rules, which are as follows:

1. When each Early Decision candidate files his formal application for admission, he must state in writing that he wishes to be considered for Early Decision and that he will enroll if admitted. The Early Decision candidate may file regular applications at other colleges, but only with the understanding that these will be withdrawn if the candidate is accepted on an Early Decision basis by his first-choice college. In other words, only one Early Decision application may be made, but other regular applications can be listed simultaneously.

2. The student's application and formal request for Early Decision must be submitted to Bowdoin by *November 1*. The earlier the completed application is received, the earlier the College can deliberate the case and respond. Decisions will be announced no later than mid-December, and some before that time.

3. A successful applicant for financial aid will be notified of the amount of his award at the time he receives his Early Decision acceptance, provided his financial aid forms are complete. Those applicants who are admitted without a decision on financial aid are free to continue other applications.

4. An Early Decision acceptance is contingent upon completion of the senior year in good standing.

5. A candidate not accepted under the Early Decision program will automatically be transferred to the regular applicant group, and will be considered at the normal time in the spring. Failure to be admitted as an Early Decision candidate in no way prejudices

one's chances for admission later. (Each year, a significant number of applicants who were deferred under Early Decision are accepted in April.) Decisions on all applications will be announced by mid-April.

REGULAR ADMISSION: The following items constitute a completed admissions folder:

1. The student's application form submitted with the application fee (\$15) as early as possible in the senior year. The deadline for receiving regular applications is February 1.

2. The secondary school report form with the school's confidential estimate of the candidate and a transcript of grades through the mid-year marking period of the candidate's senior year.

3. Recommendations: Each candidate is required to submit two reference forms—from an English teacher and a second teacher, club adviser, or coach.

4. CEEB Tests: Applicants are not required to submit results of the CEEB Tests. If a student does choose to submit his test scores, the Admissions Committee will probably find them helpful in reaching a decision. The secondary school record, however, will always be considered the most important factor.

5. Visit and Interview: A visit to Bowdoin during the candidate's junior or senior year is recommended. An interview with an admissions officer is strongly encouraged but not required.

The College welcomes visitors throughout the year; however, interviews with an admissions officer should be arranged two weeks in advance. Because no interviews can be scheduled between *February 15* and *May 1*, an applicant who desires an appointment should plan it before *February 15*. Student guides are available at the Moulton Union to conduct tours of the campus. The Admissions Office is open from 9 A.M. to 5 P.M. on weekdays and from 9 A.M. until 12 NOON on Saturdays during the academic year. During the summer it is open from 9 A.M. to 4 P.M. Monday-Friday and closed on Saturday.

ADMISSION WITH ADVANCED STANDING: Bowdoin participates in the College Entrance Examination Board Advanced Placement Program and grants both advanced standing in courses and credit toward graduation to properly qualified students. Examinations in Advanced Placement subjects are given by the CEEB in May of each year, and a student is granted placement or credit on the basis of his examination performance. A score of 3, 4, or 5 normally results in a student's being given credit for one or two semesters of college-level work in the subject; if he elects to continue that sub-

ject in college, he is given appropriate placement. An applicant should request consideration for advanced placement and credit by arranging for all Advanced Placement Test scores to be sent to the Admissions Office.

Candidates not offering Advanced Placement examinations may secure advanced placement by passing a qualifying examination at the College. Bowdoin recognizes the place of more advanced courses in secondary school and provides an opportunity for the unusually qualified student to extend the range of work that he may do in school and college. Occasionally a student may gain sufficient credit to enable him to complete his college course in fewer than eight semesters.

TRANSFER STUDENTS: A limited number of students from other colleges and universities may be admitted each year to upper-class standing at Bowdoin. Candidates for transfer admission should submit early in the spring transcripts of their college and school records, results of College Board Tests, and statements of character and academic standing from the deans or advisers at their colleges. The records of transfer candidates should be of good quality in a course of study which approximates the work that would have been done at Bowdoin had they entered as freshmen. At least one full year of residence at Bowdoin is required for the degree, but admission to the senior class is not usually granted.

SPECIAL STUDENTS: Special-student status is granted to persons who do not wish to become candidates for the degree but wish to pursue studies in regular classes. Admission is based upon maturity, seriousness of purpose, and adequacy of preparation for the work to be undertaken. No student is permitted to continue in special standing more than two years. Those who enter as special students and who later wish to become candidates for the degree must satisfy all of the regular requirements for admission to the College.

PROCEDURE FOR APPLICATION FOR FINANCIAL AID

Bowdoin is one of more than seven hundred colleges which ask candidates for financial aid to file information through the College Scholarship Service, P.O. Box 176, Princeton, N. J. 08540, or P.O. Box 1025, Berkeley, California 94701, or P.O. Box 881, Evanston, Illinois 60201. This organization has been formed to simplify scholarship procedures and to make decisions on awards as fair as possible. Each applicant for financial aid should obtain the Parents' Confidential Statement Form from his school and request the Col-

lege Scholarship Service to forward a copy of this statement to Bowdoin. *No other form is required by Bowdoin, and application for assistance is complete upon receipt of the Parents' Statement and the completed application for admission.* February 1 is the deadline for filing these applications. Recipients of financial aid are selected on the basis of their academic records and personal promise; the amount of such assistance is intended to meet the individual's need as calculated from the information in the Parents' Confidential Statement. Additional material about the program of financial aid at Bowdoin may be found on pages 49-76. Awards of financial aid are announced with the letters of admission.

All correspondence concerning admission to the College and prematriculation scholarships should be addressed to the Director of Admissions, Bowdoin College, Brunswick, Maine 04011.

Scholarships, Loans, and Financial Aid

SCHOLARSHIP grants, loans, and student employment are the principal sources of aid for Bowdoin students who need help in meeting the expenses of their education. Bowdoin believes that a student who receives financial aid as an outright grant should also expect to earn a portion of his expenses and that he and his family should assume responsibility for repayment of some part of what has been advanced to help him complete his college course. Grants will total about \$725,000 in 1970-1971 and will be made to more than 40 percent of the student body. All awards are made on the basis of satisfactory academic work and financial need, which is a requisite in every case. The financial aid program is coordinated by the director of student aid, to whom all applications, except those from students not yet enrolled in college, should be directed. Prospective freshmen should submit their applications to the director of admissions.

For the past several years, more than \$225,000 has been lent annually to students. Long-term loans continue to be an integral part of financial aid, supplementing scholarship grants. Long-term loans may also be made to students not receiving scholarship grants on recommendation of the director of student aid. These loans, including those made from National Defense Student Loan funds, bear no interest during undergraduate residence. Interest at 3 percent is charged; and payment over a ten-year period is called for beginning nine months after graduation or separation; or after graduate school, three years of military, Peace Corps, or Vista service, or a combination of these. National Defense Student Loans also provide for the waiver of some payments for men who become teachers. Small, short-term loans are available upon application at the Business Office.

The student employment program offers a wide variety of opportunities to undergraduates. These include direct employment by the College, employment by the fraternities, and employment by outside agencies represented on the campus or located in the community. Some jobs are assigned to supplement grants and loans, but there are other opportunities for students who are interested, able, and willing to work. Except for the assignment of a few jobs known as bursaries, special commitments for employment are not made to freshmen until after the opening of college in September.

The College participates in the Work-Study Program established under the Economic Opportunity Act of 1964 and in the Educational Opportunity Grants Program established under the Higher Education Act of 1965.

PREMATRICULATION SCHOLARSHIPS: About ninety freshmen each year receive prematriculation awards to help them meet the expenses of their first year. Recently the range of awards has extended from \$400 to \$3,700. As noted above, some awards are direct grants, but most include the tender of loans and bursaries. The size and nature of these awards depend upon the need demonstrated by the candidates. Application should be made to the director of admissions before February 1 of each year. A candidate will be notified of a prematriculation award at the time he is informed of the decision on his application for admission, usually about April 15.

The general basis for the award of all prematriculation scholarships is the same although there are particular qualifications in several instances which are described below. For every award, however, each candidate is judged on the basis of his academic and personal promise as well as on the degree of his financial need. In determining these, the College considers the evidence provided by the school record, the results of standardized aptitude tests, the recommendations of school authorities and others, the range and degree of the candidate's interests, and the statement of financial resources submitted on the Parents' Confidential Statement of the College Scholarship Service.

A freshman who holds a prematriculation award may be assured of continuing financial aid that meets his needs in his upper-class years if his year-end grades are such as to assure normal progress toward graduation. This will ordinarily require grades of *Pass* in all regular courses, except that in some cases one grade of *Fail* may, at the discretion of the Committee on Student Aid, be balanced by one grade of *High Honors* or two grades of *Honors*. In each upper-class year the proportion of financial aid offered as a grant will be progressively decreased, and that offered as a loan increased, except in the case of certain scholarships where the full award must be made as an outright grant.

All awards of financial aid made in anticipation of an academic year, including the freshman year, will remain in effect for the full year unless the work of the holder is markedly unsatisfactory. Awards for such men may be reduced or withdrawn for one semester. Awards may also be reduced or withdrawn for gross breach of conduct or discipline.

GENERAL SCHOLARSHIPS: Awards similar to prematriculation scholarships are granted to undergraduates already enrolled in college on the basis of their academic records and their financial need. Normally, these awards are made at the end of one academic year in anticipation of the next, but applications may also be made in November for aid to be assigned during the spring semester. Awards made for a full year are subject to the same provisions covering prematriculation awards, but those made for a single semester are not considered as setting award levels for the following year.

BURSARIES AND MAJOR EMPLOYMENT ASSIGNMENTS: So far as practicable all college student jobs paying as much as \$200 per year will be assigned to students of recognized need by agreement between the director of student aid, the department head concerned, and the students to be employed. Bursaries, assigned to incoming freshmen as part of their financial aid, are subject to similar regulations, whether they involve college jobs or work in fraternities.

GRADUATE SCHOLARSHIPS: These awards are made to students who have completed their work at Bowdoin and are pursuing advanced study at other institutions. Application should be made in writing to the director of student aid. They are described on pages 72-74.

U. S. ARMY RESERVE OFFICERS' TRAINING CORPS SCHOLARSHIPS: These four-year scholarships are awarded by the United States Army on a competitive basis to high school seniors. Recipients may use these scholarships at any college which will admit them and which has the ROTC program. Additionally, scholarships for one, two, and three years are awarded on a competitive basis to students already in the four-year program. The grant from the Army covers full tuition with an annual allowance for fees, books, and supplies as well as \$50 a month subsistence pay. Awards are made without regard to financial need. Recipients must agree to take the Four-Year ROTC Program to earn a commission and to serve four years on active duty as an officer in the United States Army. To secure application forms for the four-year ROTC scholarship, individuals should write to the commanding general of the Army area in which they live or to the director of the ROTC program at Bowdoin College no later than October of the senior year in high school. Applications for the one-, two-, and three-year ROTC scholarship program are made during the school year upon announcement by the director of the ROTC program.

General Scholarships

The awards made as general scholarships are derived from funds provided by many generous donors, including alumni who contribute annually through the Alumni Fund. Most of them are assigned on an annual basis early in the summer by the Faculty Committee on Admissions and Student Aid, but others, especially for freshmen, are made at the end of the fall semester. The scholarships are listed alphabetically in each of two sections. Endowed scholarships are in Section I; scholarships funded annually are in Section II.

Section I: Endowed Scholarships

(As of January 31, 1970)

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|--|----------|
| E. Farrington Abbott Memorial Scholarship Fund (1965) | \$25,766 |
| Given by his family. | |
| Preference, first, to students from Androscoggin County, and second, to students from Maine. | |
| Clara Rundlett Achorn Scholarships (1932) | 10,000 |
| Given by Edgar O. Achorn 1881. | |
| Preferably to students from Lincoln Academy, Newcastle. | |
| Fred H. Albee Scholarship Fund (1956) | 24,445 |
| Given by Mrs. Fred H. Albee. | |
| Louella B. Albee Scholarship (1956) | |
| Given by Mrs. Fred H. Albee. | |
| One-half the income of a trust fund awarded every four years. | |
| Stanwood Alexander Scholarship (1903) | 9,668 |
| Given by DeAlva Stanwood Alexander 1870. | |
| Preferably to students from Richmond, or for excellence in American history. | |
| Vivian B. Allen Foundation Scholarship Fund (1970) | 100,000 |
| Given by the Vivian B. Allen Foundation. | |
| To students from foreign countries. | |
| Leon W. and Hazel L. Babcock Fund (1965) | 21,722 |
| Given by Leon W. Babcock 1917. | |
| Students showing aptitude and interest in the study of the physical sciences. | |
| Antanina Kunigonis-Marcinkevicius Bachulus Fund (1964) | 16,413 |
| Given by John Matthew Bachulus 1922. | |
| Preference to a student of American citizenship and Lithuanian descent, or a foreign student of Lithuanian origin. | |

Scholarships, Loans, and Financial Aid 53

Eva D. H. Baker Scholarship (1932) Given by Guy P. Estes 1909. Preferably to a Christian Scientist.	4,546
Dennis Milliken Bangs Scholarship (1918) Given by Mrs. Hadassah J. Bangs.	4,829
W. S. Bass '96 and J. R. Bass '00 Memorial Scholarship Fund (1965) Given by members of the Bass family. Students from Wilton, other towns in Franklin County, or from Maine.	12,053
Richard C. Bechtel Scholarship Fund (1967) Given by Richard C. Bechtel 1936. Preference to students showing aptitude and interest in the field of mathematics.	9,509
Charles R. and Mary D. Bennett Scholarship Fund (1967) Given by Mrs. Charles R. Bennett. Students from Yarmouth, from North Yarmouth Academy or Yar- mouth High School, or from Cumberland County.	5,100
Freeman E. Bennett and Ella M. Bennett Fund (1950) Given by Mrs. Freeman E. Bennett.	33,180
Louis Bernstein Scholarship Fund (1970) Given by Louis Bernstein 1922.	10,000
Harold Lee Berry Scholarship Fund (1959) Given by Harold Lee Berry 1901.	14,887
Charles G. Berwind Scholarship Fund (1966) Given by Charles G. Berwind and others. Preference to students who have been associated with the program of the Big Brothers of America, Inc.	24,636
Beverly Scholarship (1923) Given by the Beverly (Mass.) Men's Singing Club. Preference to students from Beverly, Massachusetts.	2,654
William Bingham, 2nd, Scholarship Fund (1956) Given by the Trustees, Betterment Fund under the will of William Bingham, 2nd. Students from Bethel, other towns in Oxford County, or from Maine.	25,000
Adriel U. Bird Scholarship Fund (1953) Given by a friend of Adriel U. Bird 1916. Students from New England graduated from New England schools.	100,000
Blake Scholarship (1882) Given by Mrs. Noah Woods.	3,885

George Franklin Bourne Scholarship (1887) Given by Mrs. Narcissa Sewall Bourne.	970
James Bowdoin Scholarship Fund (1969) Given by Clara Bowdoin Winthrop. Preference to students who are residents of Maine.	30,000
James Bowdoin Student Aid Fund (1962) Given by several persons.	2,310
George W. R. Bowie Fund (1965) Given by William Roland Bowie. A needy Protestant student, preferably a country boy of American ancestry from Androscoggin County.	3,000
Robert W. Boyd Scholarship Fund (1968) Given by his friends.	6,450
John Hall and George Monroe Brett Fund (1957) Given by Mrs. John Hall Brett.	47,735
Geraldine Brewster Scholarship Endowment Fund (1957) Given by Geraldine Brewster.	4,288
Stuart F. Brown Scholarship Fund (1968) Given by Mrs. Stuart F. Brown and family. An annual scholarship of \$1,000. Preference to students from Whitinsville and Uxbridge or other towns and cities in Worcester County, Massachusetts.	13,072
William Buck Scholarship Fund (1947) Given by Anna S. Buck. A premedical student, preferably from Piscataquis County.	1,500
George W. Burpee Scholarship Fund (1968) Given by his friends.	4,955
Moses M. Butler Scholarship Fund (1903) Given by Mrs. Moses M. Butler.	9,545
Buxton Scholarship Fund (1875) Given by Cyrus Woodman 1836, Frank H. L. Hargraves 1916, and Gordon S. Hargraves 1919. Preference to natives and residents of Buxton.	11,887
Florence Mitchell Call Scholarship (1927) Given by Norman Call 1869.	1,500
Sylvester B. Carter Scholarship (1918) Given by Sylvester B. Carter 1866. Residents of Massachusetts.	2,726
Warren B. Catlin Fund (1969) Given by Warren B. Catlin.	

Scholarships, Loans, and Financial Aid

55

\$35,000 of the annual income of a fund of \$1,721,054 for financial assistance to students in the form of loans and/or grants.

Justus Charles Fund (1875) Given by Justus Charles.	9,595
Henry T. Cheever Scholarship (1897) Given by Henry T. Cheever 1834.	486
Hugh J. Chisholm Scholarship (1915) Given by Mrs. Hugh J. Chisholm and Hugh J. Chisholm, Jr.	69,649
Claff Scholarship Fund (1963) Given by the Claff Charitable Foundation. No award until principal reaches \$25,000.	16,550
Samuel Clark, Jr., Scholarship Fund (1941) Given by Samuel W. Clark, Jr. Students serving as assistants, preferably from Portland.	12,500
Class of 1872 Scholarship (1903) Given by the Class of 1872.	2,444
Class of 1881 Scholarship (1907) Given by the Class of 1881.	3,947
Class of 1892 Scholarship Fund (1918) Given by the Class of 1892.	1,447
Class of 1896 Memorial Scholarship Fund (1917) Given by the Class of 1896.	5,800
Class of 1903 Scholarship (1914) Given by the Class of 1903. Preference to descendants of members of the Class.	20,691
1916 Class Fund (1941) Given by the Class of 1916.	5,507
Class of 1919 Scholarship Fund (1970) Given by the Class of 1919.	29,457
Class of 1920 Scholarship Fund (1938) Given by the Class of 1920.	2,771
Class of 1926 Fund (1951) Given by the Class of 1926.	37,669
Class of 1929 Memorial Scholarship Fund (1954) Given by the Class of 1929. Preference to descendants of members of the Class.	50,000

Class of 1930 Scholarship Fund (1955) Given by the Class of 1930.	21,409
Class of 1931 Memorial Fund (1956) Given by the Class of 1931.	21,220
Class of 1932 Scholarship Fund (1957) Given by the Class of 1932.	20,282
Class of 1933 Memorial Fund (1958) Given by the Class of 1933. Preference to descendants of members of the Class.	14,163
Class of 1936 Scholarship Fund (1961) Given by the Class of 1936.	32,210
Class of 1940 Memorial (1965) Given by the Class of 1940. Preference to students of meritorious scholastic achievement who are athletically adept.	21,355
Class of 1942 Memorial Scholarship Fund (1968) Given by the Class of 1942. Two scholarships of one-half the annual income each to freshmen, one to a student of meritorious achievement who is athletically adept and one to a student of meritorious achievement who is adept in the study of classics, music, or art.	36,962
1944 Class Fund (1944) Given by the Class of 1944.	30,558
James F. Claverie Memorial Scholarship Fund (1967) Given by Mrs. Dorothy A. Claverie. Preference to descendants of James F. Claverie 1910.	5,556
Mary Cleaves Scholarship Fund (1872) Given by Mary Cleaves.	3,012
Philip O. and Alice Meyer Coffin Scholarship Fund (1967) Given by Alice M. Coffin. Preference to students who graduated from the Brunswick High School.	10,035
Alfred E. Cohan Scholarship Fund (1970) Given by Hannah Seligman. Students who have an interest in the creative arts.	5,000
Sanford Burton Comery Fund (1936) Given by the Belmont High School and friends. Preferably to a student from the Belmont, Massachusetts, High School, or the Thomaston, Maine, High School.	1,000
Albert D. and Madelyn Dyer Conley Scholarship Fund (1968)	12,102

- Given by Mr. and Mrs. Albert D. Conley in memory of John Small Dyer, Medical 1904.
Preference to physically or socially handicapped students from the State of Maine.
- Connecticut Alumni Scholarship Fund (1955) 10,960
Given by the Bowdoin Alumni Association of Connecticut.
- Carleton S. Connor Memorial Fund (1963) 32,185
Given by his friends and relatives.
Preference to students from Connecticut.
- E. C. Converse Scholarship Fund (1922) 51,376
Given by Edmund Cogswell Converse.
- Leon T. and Florence Kennedy Conway Scholarship Fund (1967) 9,294
Given by Leon T. Conway 1911 and Mrs. Conway.
Preference to students from Hackensack and other New Jersey communities.
- Harry S. and Jane B. Coombs Fund (1962) 2,000
Given by Mrs. Harry S. Coombs.
- Else H. Copeland Scholarship Fund (1955) 30,000
Given by Melvin Thomas Copeland 1906.
- Manton Copeland Scholarship Fund (1960) 23,327
Given by friends of Professor Copeland.
Preference to juniors and seniors majoring in biology.
- Cram Memorial Scholarship (1872) 973
Given by Marshall Cram.
- Ephraim Chamberlain Cummings Scholarships (1914) 2,914
Given by Mrs. Ephraim C. Cummings.
- Charles M. Cumston Scholarship (1902) 24,176
Given by Charles M. Cumston 1843.
Preferably to graduates of the English High School of Boston.
- Mary Decrow Dana Scholarship Fund (1967) 25,979
Given by Luther Dana 1903.
- Dr. Murray Snell Danforth Fund (1956) 10,000
Given by Agnes H. Danforth.
Legal residents of Maine preparing for the medical or related professions.
- Deane Scholarship in English Literature (1924) 993
Given by Mrs. Sarah M. B. Deane.

A deserving student showing particular ability in English literature.	
Benjamin Delano Scholarship (1877) Given by Benjamin Delano.	973
Dodge Fund (1959) Given by Leon A. Dodge 1913. Most deserving student who graduated from Lincoln Academy, Newcastle, or if none, to students from Lincoln County.	20,000
John C. Dodge Scholarship (1872) Given by John C. Dodge 1834 and his family.	5,413
James L. and Harriet I. Doherty Scholarship (1931) Given by Mrs. James L. Doherty.	5,000
Frank Newman Drew Scholarship (1926) Given by Franklin M. Drew 1858.	2,000
Edward A. Drummond Scholarships (1914) Given by Edward A. Drummond. Preferably to students from Bristol.	5,050
Joseph Blake and Katharine Randall Drummond Scholarship Fund (1966) Given by Mrs. Joseph B. Drummond. Preference to students from Cumberland County.	14,500
Charles Dummer Scholarships (1874) Given by Mrs. Charles Dummer.	6,166
Jessie Ball du Pont Scholarship Fund (1966) Given by Mrs. Alfred I. du Pont.	317,969
Emma Jane Eaton Scholarship (1944) Given by Mrs. Emma Jane Eaton. Students who are graduates of the Calais High School or natives of Washington County.	10,000
Ayres Mason Edwards Scholarships (1937) Given by Mrs. Ayres Mason Edwards.	5,375
Robert Seaver Edwards Scholarship Fund (1965) Given by an anonymous donor.	10,000
John F. Eliot Scholarship (1932) Given by John F. Eliot 1873 and Mrs. Eliot.	35,676
And Emerson Scholarships (1875) Given by And Emerson.	7,245
Emery Scholarship (1933) Given by Mrs. Anne Crosby Emery Allinson. For an individual boy to be selected by the dean of the College.	12,073

Scholarships, Loans, and Financial Aid 59

William Engel Fund (1936) Given by Mrs. William Engel.	21,692
Dana Estes Scholarship (1912) Given by Dana Estes.	2,460
Guy Parkhurst Estes Scholarships (1958) Given by Guy Parkhurst Estes 1909.	100,000
Lewis Darenydd Evans II, Scholarship Fund (1950) Given by Frank C. Evans 1910 and Mrs. Evans. As scholarships or loans to students from the State of Maine.	142,796
Fagone Scholarship Fund (1969) Given by Mrs. Helen Bacon Fagone and friends in memory of Francis A. Fagone of the Class of 1922. Preference to a student from Portland High School or Deering High School in Portland, Maine, who intends to pursue a medical course of study or one in the natural sciences.	1,722
George B. Farnsworth-Thomas P. and Agnes J. Hanley Scholarship Fund (1966) Given by Miss Margaret A. Hanley and Daniel F. Hanley 1939. Preference to juniors and seniors who are premedical students.	10,063
Hugh F. Farrington Scholarship Fund (1947) Given by Mrs. Hugh F. Farrington. A member of the Phi Delta Psi Fraternity to be awarded at the end of his junior year.	200
G. W. Field Fund (1881) Given by George W. Field 1837. Preference, first, to students or graduates of the Bangor Theological Seminary, and second, to graduates of the Bangor High School.	4,066
Herbert T. Field Scholarship Fund (1967) Given by Caroline F. Dunton. Preference to students from Belfast and Waldo County, Maine.	41,094
Edward Files Scholarship Fund (1960) Given by Charles Edward Files 1908. Preference to a student from Cornish or a nearby town.	3,600
Joseph N. Fiske Scholarship (1896) Given by Mrs. Joseph N. Fiske.	973
John P. Fitch Scholarship Fund (1968) Given by Mrs. John P. Fitch.	23,031
Dr. Ernest B. Folsom Scholarship Fund (1967) Given by Effie I. Jordan.	58,028

Wm. E. Foster Scholarship Fund (1968)	100,000
Given by Mrs. Alta Whitehouse Foster.	
Preference to students intending to pursue a career in journalism.	
Samuel Fraser Scholarship Fund (1969)	3,000
Given by Samuel Fraser 1916.	
Students from Masardis, Maine.	
Benjamin Apthorp Gould Fuller, of the Class of 1839, Scholarship (1916)	1,242
Given by an anonymous donor.	
Preference to a student from Augusta.	
George Gannett Fund (1913)	6,289
Given by Mrs. George Gannett.	
General Electric College Bowl Scholarship Fund (1964)	14,081
Given by the General Electric Company and others.	
William Little Gerrish Scholarship (1890)	973
Given by Frederic Henry Gerrish 1866.	
Charles H. Gilman Scholarship (1924)	1,000
Given by Mrs. Charles H. Gilman.	
Given Foundation Scholarship Fund (1960)	100,000
Given by the Irene Heinz Given and John LaPorte Given Foundation, Inc.	
Dr. Edwin W. Gould Scholarship (1936)	1,000
Given by Edwin W. Gould, Medical 1887.	
Joseph and Lester Gumbel Scholarship Fund (1959)	20,000
Given by Lester Gumbel 1906.	
Henry W. and Anna E. Hale Scholarship Fund (1945)	15,154
Given by an anonymous donor.	
John P. Hale Scholarship (1916)	3,780
Given by Mrs. John P. Hale and Mrs. Elizabeth Hale Jacques.	
Hall-Mercer Scholarship Fund (1940)	74,726
Given by the Reverend Alexander G. Mercer.	
John F. Hartley Scholarship (1915)	13,988
Given by Frank Hartley.	
Students or graduates intending to enter the profession of the law.	
Moses Mason Hastings Fund (1933)	8,753
Given by Mrs. Fred H. Dodge.	
Preferably to students from Bethel and Bangor.	

Scholarships, Loans, and Financial Aid

61

Hasty Scholarship Fund (1912)	1,000
Given by Almira K. Hasty.	
Preferably to students from Portland or Cape Elizabeth.	
John W. and Florence S. Higgins Scholarship Fund (1966)	259,817
Given by John W. Higgins 1902 and Mrs. Higgins.	
Preference to students from Starks, Skowhegan, Somerset County, and Maine, in that order.	
Ernest Laurence Hill Scholarship Fund (1960)	121,894
Given by Mrs. Annette S. Hill.	
Linnie P. Hills Fund (1963)	9,809
Given by Mrs. Linnie P. Hills.	
Howe Scholarship (1931)	44,167
Given by Lucien Howe 1870.	
Preferably to students intending to study ophthalmology or allied subjects.	
Caroline Huntress Scholarship Fund (1943)	979
Given by Roderick L. Huntress 1927.	
Roscoe H. Hupper Scholarship Fund (1968)	7,361
Given by Mrs. Roscoe H. Hupper.	
Preference to students who, first, are graduates of Hebron Academy or, second, to students from the State of Maine.	
Guy H. Hutchins Scholarship (1943)	1,000
Given by Guy H. Hutchins, Medical 1899.	
A student majoring in biology or chemistry.	
Winfield S. Hutchinson Scholarships (1959)	33,416
Given by Mrs. Winfield S. Hutchinson.	
William Dunning and Mary Elliott Ireland Scholarship Fund (1968)	1,603
Given by William D. Ireland, Jr., 1949.	
Preference to a student who has had some connection with the College in the past.	
Ireson-Pickard Scholarship (1960)	5,000
Given by Jennie E. Ireson.	
Howard Rollin Ives Memorial Scholarship (1917)	38,038
Given by friends of Howard Rollin Ives 1898.	
Henry Whiting Jarvis Scholarship Fund (1954)	1,000
Given by Mrs. Eleanor Jarvis Newman.	
Alfred Johnson Scholarships (1870)	2,913
Given by Alfred Waldo Johnson 1845.	

John Johnston Fund (1938)	25,000
Given by Albert W. Johnston.	
Sarah Maude Kaemmerling Scholarship and Loan Fund (1959)	106,366
Given by Mrs. Sarah Maude Kaemmerling.	
Kappa Scholarship Fund (1947)	5,387
Given by Charles S. F. Lincoln 1891.	
To a member of the Psi Upsilon Fraternity.	
Dean Nathaniel C. Kendrick Scholarship Fund (1970)	6,275
Given by his family and friends.	
Frank H. Kidder Scholarship (1929)	21,333
Given by Frank H. Kidder.	
Preference to graduates of Thayer Academy or students from Massachusetts.	
Monte Kimball Scholarship Fund (1970)	21,063
Given by W. Montgomery Kimball 1923.	
Preference to students from Henderson County, North Carolina.	
Charles Potter Kling Fund (1934)	50,000
Given by Charles P. Kling.	
Provides tuition and books for students of colonial or revolutionary ancestry.	
George B. Knox Fund (1962)	683,372
Given by George B. Knox 1929 and Mrs. Knox.	
Preference, first, to students from California and, second, to students from the Pacific coast as scholarships or financial aid.	
Samuel Appleton Ladd, Jr., Scholarship Fund (1969)	10,000
Given by the Class of 1929.	
Juniors and/or seniors interested in pursuing a business career.	
Frederic Evans Lally Scholarship (1902)	486
Given by Frederic Evans Lally 1882.	
Joseph Lambert Fund (1896)	970
Given by Mrs. Ann E. Lambert.	
Donovan D. Lancaster Scholarship (1969)	5,573
Given by members of Alpha Rho Chapter, Kappa Sigma Fraternity.	
Preference to an active member of Alpha Kappa Sigma Fraternity.	
John V. Lane Scholarship (1942)	5,000
Given by Susan H. Lane.	
Lawrence Foundation (1847)	6,220
Given by Mrs. Amos Lawrence.	
Preference to graduates of Lawrence Academy.	

Lawrence Scholarship (1926)	25,025
Given by Mrs. Samuel C. Lawrence.	
Students residing in the State of Maine.	
Richard Almy Lee Scholarship (1910)	2,000
Given by Mrs. Elizabeth Lee Eliot and Miss Sylvia Lee.	
Preference to a member of the Beta Theta Pi Fraternity.	
Edward K. Leighton Scholarships (1953)	
Given by Edward K. Leighton 1901.	
A part of the income of the Edward K. Leighton Fund.	
Students residing in Knox County.	
Leon Leighton and Margaret B. Leighton Scholarship Fund (1944)	10,000
Given by Leon Leighton, Jr., 1919.	
Preference to descendants of alumni of Bowdoin College.	
Frank E. and Nellie V. Leslie Scholarship Fund (1967)	5,000
Given by Nellie V. Leslie.	
Preference to students from Maine or Massachusetts pursuing a premedical course.	
Weston Lewis Scholarship (1919)	15,000
Given by Mrs. Weston Lewis.	
Charles F. Libby Scholarship (1915)	3,270
Given by Charles F. Libby 1864.	
A student and resident of Portland, preferably pursuing a classical course.	
Amos D. Lockwood Scholarship (1888)	1,103
Given by Mrs. Sarah F. Lockwood.	
George C. Lovell Scholarship (1917)	1,974
Given by Mrs. George C. Lovell.	
Preference to a student from Richmond.	
Lubec Scholarship Fund (1961)	50,000
Given by Sumner T. Pike 1913.	
Preference to current or former residents, or descendants of residents, of Lubec, with second preference to students similarly associated with other communities in Washington County.	
Moses R. Ludwig and Albert F. Thomas Scholarships (1884)	1,017
Given by Mrs. Moses R. Ludwig.	
Earle Howard Lyford Scholarship (1956)	2,000
Given by Mrs. Earle Howard Lyford.	
Frederick J. and Hope M. Lynch Fund (1968)	20,000
Given by Hope M. Lynch.	
Preference to students born and residing in Maine.	

Louis Blalock McCarthy Scholarship Fund (1966) Given by his family and friends.	15,730
Scott S. McCune Scholarship Fund (1963) Given by Mr. and Mrs. George W. McCune, Jr., George B. Knox 1929, and Mrs. Knox. Preference to students from Idaho and Utah.	25,000
S. Forbush McGarry, Jr., Scholarship Fund (1941) Given by S. Forbush McGarry, Jr., 1936 and Caroline McGarry.	22,866
Greenwood H. McKay Fund (1965) Given by Roland L. McKay, Medical 1908. Preference to students from Augusta.	10,000
Max V. MacKinnon Scholarship Fund (1968) Given by Mrs. Louise McCurdy MacKinnon.	1,028
George Clifton Mahoney Fund (1939) Given by George C. Mahoney 1891.	8,310
William N. Mann Scholarship Fund (1969) Given by William N. Mann. Preference to residents of Yarmouth, Maine, or second, to gradu- ates of North Yarmouth Academy.	2,000
Richard S. Mason Scholarships (1958) Given by Jane Graham Mason. One-third of the income of a fund of \$40,000.	
Charles P. Mattocks Scholarship (1955) Given by Mrs. Mary M. Bodge.	2,000
Francis LeBaron Mayhew Scholarship Fund (1922) Given by Mrs. Francis LeBaron Mayhew.	6,333
James Means Scholarship (1885) Given by William G. Means.	2,040
Joseph E. Merrill Scholarships (1909) Given by Joseph E. Merrill 1854. The sum of \$4,000 annually from the income of this fund. To American-born students, preferably those born in Maine.	
Edward F. Moody Scholarship (1912) Given by Inez A. Blanchard and others. To a meritorious student for proficiency in chemistry.	5,458
Jennie L. Moody Fund (1947) Given by William A. Moody 1882.	20,000
Hoyt A. Moore Scholarship Fund (1954) Given by Hoyt A. Moore 1895.	100,000

For Maine boys, preferably from Ellsworth and other places in Hancock County.

Malcolm E. Morrell Scholarship Fund (1967)	10,226
Given by his friends.	
To a member of the junior or senior class.	
Freedom Moulton Scholarship Fund (1933)	10,395
Given by Augustus F. Moulton 1873.	
New Hampshire Charitable Fund Scholarship (1964)	30,000
Given by the New Hampshire Charitable Fund and New Hampshire Alumni.	
A student residing in New Hampshire.	
Edward Henry Newbegin Scholarship (1909)	1,456
Given by Henry Newbegin 1857.	
Guilford S. Newcomb Scholarship (1939)	1,000
Given by Edward R. Stearns 1889.	
A worthy student from Warren.	
Crosby Stuart Noyes Scholarships (1897)	3,885
Given by Crosby Stuart Noyes.	
Preference to natives or residents of Minot.	
O'Brien Scholarship (1935)	5,000
Given by Mrs. Harriet O'Brien Walker.	
Preferably to students from Machias.	
Osborne-Fawcett Scholarship Fund (1967)	20,000
Given by Mrs. D. C. Osborne.	
Preference to students from the New York City-Long Island, N. Y., area.	
Packard Scholarship (1905)	2,000
Given by Alpheus S. Packard, Jr., 1861.	
A student in botany, geology, or zoology.	
George Winfield Parsons Scholarship (1956)	2,500
Given by Harry S. Parsons, Medical 1891.	
To a student from Brunswick.	
Lindley F. and Mabelle Foss Parsons Scholarship Fund (1969)	1,125
Given by Marcus L. Parsons.	
Preference to students from Somerset County, Maine, or second, to students from rural Maine.	
John H. Payne Scholarship (1947)	9,500
Given by John H. Payne 1876.	
Preferably students born and brought up in the State of Maine.	

John H. and Ernestine A. Payne Scholarship Fund (1947)	168,895
Given by Mrs. John H. Payne.	
Preferably students born and brought up in the State of Maine.	
Payson Scholarship (1935)	193,887
Given by Mrs. Charles H. Payson.	
Roland Marcy Peck Memorial (1917)	973
Given by Anna Aurilla Peck.	
Woolf Peirez Scholarship Fund (1958)	32,065
Given by Louis A. Peirez.	
Students from New York City or Nassau County, preferably those who are foreign born or are of foreign-born parents.	
Samuel H. and Sarah Allen Perkins Scholarship Fund (1947)	1,007
Given by Dr. Anne E. Perkins and Dr. Effie A. Stevenson.	
Arthur Lincoln Perry Scholarship (1936)	5,000
Given by Mary Adelia Perry.	
Trueman S. Perry Scholarship (1939)	882
Given by Trueman S. Perry 1850.	
A student looking to the Evangelical ministry as a profession.	
Margaret M. Pickard Scholarship Fund (1954)	35,000
Given by John C. Pickard 1922.	
Pierce Scholarship (1878)	1,020
Given by Mrs. Lydia Pierce.	
Stanley Plummer Scholarship (1920)	2,016
Given by Stanley Plummer 1867.	
Preference to students born in Dexter.	
Potter Scholarship (1950)	52,500
Given by Caroline N. Potter.	
Walter Averill Powers 1906 Scholarship Fund (1963)	10,062
Given by Ralph A. Powers 1913.	
A student residing in the State of Maine.	
John Finzer Presnell, Jr., Scholarship Fund (1947)	1,000
Given by Mr. and Mrs. John F. Presnell.	
A student of high Christian principles.	
C. Hamilton Preston, Class of 1902, Scholarship (1955)	2,000
Given by C. Hamilton Preston 1902.	
Annie E. Purinton Scholarship (1908)	5,005
Given by Mrs. D. Webster King.	
Preference to a Topsham or Brunswick boy.	

Scholarships, Loans, and Financial Aid

67

Henry Brewer Quinby Scholarship Fund (1930) Given by Mrs. Gurdon Maynard. Preference to students from Maine, of American ancestry on both sides.	43,000
Henry Cole Quinby Scholarship (1962) Given by Florence C. Quinby. Preference to students from Kents Hill School.	134,970
Returned Scholarships (1933) Given by various persons.	8,322
C. Earle Richardson and Ethel M. Richardson Fund (1962) Given by C. Earle Richardson 1909. Preference to students from Maine.	85,000
Flora T. Riedy Fund (1965) Given by Flora T. Riedy. As scholarships or loans to students.	15,000
Rodney E. Ross 1910 Scholarship Fund (1965) Given by Rodney E. Ross 1910.	25,841
Walter L. Sanborn Oxford County Scholarship Fund (1948) Given by Walter L. Sanborn 1901. Residents of Oxford County, preferably from Norway and Paris.	19,400
Mary L. Savage Memorial Scholarship (1872) Given by William T. Savage 1833.	1,068
Vernon and James Segal Fund (1966) Given by Vernon L. Segal 1943 and James S. Segal 1950. As a scholarship or loans to students.	900
Stephen Sewall Scholarship (1873) Given by Stephen Sewall.	1,068
William B. Sewall Scholarship (1870) Given by Mrs. William B. Sewall.	1,129
Charles Burnham Shackford Scholarship Fund (1963) Given by Martha Hale Shackford. A student or students studying in the humanities.	10,000
Charles Wells Shaw Scholarship (1942) Given by Mrs. William Curtis Merryman. Preference to residents of Bath or Brunswick.	1,000
Shepley Scholarship (1871) Given by Ether Shepley.	973

Shumway Scholarship (1959)	92,449
Given by the family of Sherman N. Shumway 1917.	
Students giving evidence of interest and ability in accomplishing leadership in campus activities and citizenship.	
Wayne Sibley Scholarship (1956)	35,150
Given by the George I. Alden Trust and his family.	
Preferably to a student from Worcester County, Massachusetts.	
Freeman H. and Anne E. Smith Scholarships (1934)	2,000
Given by Mrs. Cora A. Spaulding.	
To two students preferably from North Haven, Vinalhaven, or Rockland.	
Joseph W. Spaulding Fund (1926)	2,500
Given by Mary C. Spaulding.	
To a member of the freshman class.	
Ellis Spear Scholarship (1919)	11,006
Given by Ellis Spear 1858.	
William E. Spear Scholarship Fund (1924)	1,195
Given by Mrs. William E. Spear.	
John G. Stetson '54 Fund (1954)	58,975
Given by Marian Stetson.	
Preference to boys from Lincoln County.	
William Law Symonds Scholarship (1902)	3,367
Given by his family.	
Preference to a student showing tendency to excellence in literature.	
Jane Tappan Scholarship Fund (1956)	7,000
Given by Mrs. Margaret Tappan Shorey.	
W. W. Thomas Scholarship (1875)	5,828
Given by William Widgery Thomas 1860.	
Earle S. Thompson Scholarship Fund (1961)	37,012
Given by Earle S. Thompson 1914.	
Preference, first, to graduates of high schools in Sagadahoc County or whose homes are in that county, and second, to those resident in the State of Maine.	
Frederic Erle Thornlay Tillotson Scholarship Fund (1962)	12,676
Given by his friends.	
A freshman interested and talented in music.	
Marvin Tracey Memorial Scholarship Fund (1965)	2,518
Given by Mrs. Dorothy Simon.	
Hiram Tuell Fund (1946)	500
Given by Harriet E. and Anne K. Tuell.	

Scholarships, Loans, and Financial Aid 69

21 Appleton Hall Scholarship (1940)	3,000
Given by its former occupants.	
Walker Scholarships (1935)	25,000
Given by Annetta O'Brien Walker.	
Genevieve Warren Memorial Scholarship Fund (1967)	14,035
Given by Herbert E. Warren 1910.	
John Prescott Webber, Jr., Scholarship (1902)	2,654
Given by John P. Webber.	
George Webster Scholarship (1947)	3,000
Given by Mary L. Webster.	
Arthur D. and Francis J. Welch Scholarship Fund (1967)	213,075
Given by Mr. and Mrs. Edward P. Morgan, Vincent B. Welch 1938, and Mrs. Welch.	
Preference to academically talented students of high character, with leadership potential and athletic proficiency, and from outside New England.	
Wentworth Scholarship Fund (1937)	1,000
Given by Walter V. Wentworth 1886.	
Ellen J. Whitmore Scholarship (1903)	1,943
Given by Ellen J. Whitmore.	
Huldah Whitmore Scholarships (1887)	4,856
Given by William G. Barrows 1839.	
Nathaniel McLellan Whitmore and George Sidney Whitmore Scholarships (1887)	2,096
Given by Mrs. Mary J. Whitmore.	
Frederick W. and Elizabeth M. Willey Scholarship Fund (1963)	8,779
Given by Frederick W. Willey 1917 and Mrs. Willey.	
Roliston G. Woodbury Scholarship Fund (1964)	15,523
Given by his friends.	
Richard Woodhull Scholarship (1912)	9,964
Given by Mrs. Mary E. W. Perry.	
Preference to the descendants of the Reverend Richard Woodhull.	
Cyrus Woodman Scholarships (1903)	9,212
Given by Mary Woodman.	
Paul L. Woodworth Scholarship Fund (1970)	1,000
Given by Madeline P. Woodworth.	
Preference to students from Fairfield, Somerset County, and Maine, in that order.	

- Fountain Livingston Young and Martha Higgins Young
Scholarship Fund (1964) 21,103
Given by Paul C. Young 1918 and John G. Young 1921.
Preference to descendants of Fountain and Martha Young, or to
residents of Texas.
- Louis J. Zamanis Scholarship Fund (1961) 8,000
Given by Mrs. Louis J. Zamanis.

Section II: Scholarships Funded Annually

(As of January 31, 1970)

Alumni Fund Scholarships

Given by the Directors of the Alumni Fund.

A portion of the receipts of the Alumni Fund, to provide scholarships for entering freshmen. These awards are in varying amounts depending on the financial status of each candidate; selections are made by the Faculty Committee on Admissions and Student Aid.

George F. Baker Scholarships

Given by the George F. Baker Trust.

Awarded annually to three or four young men who give promise of leadership in American life. The specific amount of each award depends on the need of the individual and may be as much as \$2,500. The awards are renewable throughout the recipients' Bowdoin careers, subject to continued need and effective performance. No restrictions to any particular field or career, although there is special interest in those aiming at careers in business as the start, at least, of their life work.

Henry Francis Barrows Scholarship

Given by Fanny Barrows Reed.

One or more scholarships from a trust fund, for Protestant students.

Bath Iron Works Corporation Scholarship

Given by the Bath Iron Works Corporation.

An annual gift of \$1,000, restricted to an upperclassman who is the son of a Bath Iron Works Corporation employee, a resident of Bath, or a resident of the State of Maine.

Bowdoin Club of Boston Scholarship

Given by the Bowdoin Club of Boston.

An annual gift for an enrolled student from the Boston area.

Bowdoin Fathers Association Scholarship

Given by the Directors of the Bowdoin Fathers Association.

An award, usually equal to tuition, to a deserving candidate from outside New England. Selection is made by a committee composed of the dean of the College, the director of admissions, and a member of the Faculty Committee on Admissions and Student Aid.

Chi Psi Scholarship

Given by the Chi Psi Fraternity.

\$200 annually, under certain circumstances.

General Motors Scholarships

Given by the General Motors Corporation.

An initial award is made by Bowdoin every other year to a member of the entering class under the terms of the College Plan of the General Motors Scholarship Program. The amount of the award varies with the student's ability to meet his total expenses for the year. The grant may be renewed each year in accordance with the scholarship requirements of the College. Under this program the College receives from General Motors Corporation an additional grant for each scholarship recipient who is enrolled.

Gillies-Rust Scholarship

Given by Mr. and Mrs. William B. Gillies, Jr., and The Rust Foundation.

An annual gift of \$500.

Abraham S. Levey and Fannie B. Levey Foundation Scholarships

Given by The Second Abraham S. and Fannie B. Levey Foundation.

An annual gift of \$500.

Agnes M. Lindsay Scholarships

Given by Agnes M. Lindsay Trust.

An annual gift of \$8,000. Preference for students from rural New England.

Abby Page Scholarships

Given by Harvey Dow Gibson 1902.

Two scholarships of \$250 each to two boys of each graduating class in Fryeburg Academy, to be selected by the trustees of the academy.

Presser Foundation Scholarship

Given by the Presser Foundation.

An annual gift of \$400 with preference to those students who are preparing to become teachers of music.

Procter & Gamble Scholarships

Given by the Procter & Gamble Fund.

Awarded by the College, these grants provide tuition and an allowance for fees, books, and supplies, plus an annual grant of \$600 to the College. Awards are made on the basis of financial need.

Alfred P. Sloan National Scholarships

Given by the Alfred P. Sloan Foundation, Inc.

Awarded by the College, the stipends may range to a maximum of \$2,500. Although the foundation prefers to have economic need disregarded altogether as a criterion in the selection of candidates, it recognizes this would probably be impracticable. The College receives an additional grant for each scholarship recipient who is enrolled.

Hattie M. Strong Foundation Scholarship Fund in Memory of Justice Harold Hitz Burton

Given by the Hattie M. Strong Foundation.

An annual gift of \$4,000.

Graduate Scholarships: Arts and Sciences

Applications for graduate scholarships should be made in writing to the director of student aid before May 15, 1971.

CLASS OF 1922 GRADUATE SCHOLARSHIP FUND: A fund of \$26,296 from an anonymous donor honoring the members of the Class of 1922, living and deceased. Ninety percent of the income from the Fund is to be awarded to a deserving member of the graduating class to help defray the expenses of graduate work designed to assist him in preparing for a career in teaching at either the college or the secondary school level. (1965)

CHARLES CARROLL EVERETT SCHOLARSHIP: A fund of \$13,993 bequeathed by Miss Mildred Everett in memory of her father, Charles Carroll Everett, D.D., of the Class of 1850, the net income of which is given to that graduate of Bowdoin College whom the president and Faculty shall deem the best qualified to take a postgraduate course in either this or some other country. (1904)

GUY CHARLES HOWARD SCHOLARSHIP: A fund of \$21,155 bequeathed to the College by Miss Ethel L. Howard in memory of her brother, Guy Charles Howard, of the Class of 1898, the income of which is to be used to enable "some qualified student to take a postgraduate course in this or some other country, such student to be designated by the Faculty." (1958)

HENRY W. LONGFELLOW GRADUATE SCHOLARSHIP: A fund of \$10,058 given by the daughters of Henry W. Longfellow, of the Class of 1825—Miss Alice M. Longfellow, Mrs. Edith L. Dana, and Mrs. Annie L. Thorpe—for a graduate scholarship "that would enable a student, after graduation, to pursue graduate work in some other college, or abroad if considered desirable; the work to be done in English, or general literature, and the field to be as large as possible—Belles Lettres in a wide sense. The student to be selected should be one not merely proficient in some specialty, or with high marks, but with real ability in the subject and capable of profiting by the advanced work, and developing in the best way." (1907)

THE WILMOT BROOKINGS MITCHELL GRADUATE SCHOLARSHIP: An award of \$1,000 from a fund established by Hugh A. Mitchell, of the Class of 1919, "to honor the memory of my father and his love for Bowdoin." Professor Mitchell was a member of the Class of 1890 and from 1893 to 1939 Edward Little Professor of Rhetoric and Oratory. The award is made by the president upon recommendation of a committee composed of the three senior professors of the Department of English "to a member of each graduating class who has majored in English and intends to teach English, the winning candidate to be selected on the basis of character as well as superior ability and talent for teaching." The award is to be used to help defray the costs of graduate work in a leading university in this country or England. (1965)

GALEN C. MOSES GRADUATE SCHOLARSHIP: A fund of \$5,110 bequeathed by Emma H. Moses in memory of her husband, a member of the Class of 1856, the income "to be awarded and paid to the student most proficient in any natural science during his undergraduate course, who shall actually pursue a postgraduate course in such science at any recognized college or university; said income to be paid to such student for a period not exceeding three years, unless he sooner completes or abandons said postgraduate course." (1934)

O'BRIEN GRADUATE SCHOLARSHIP: A fund of \$20,000 given by Mrs. John Washburn, of Minneapolis, in memory of her uncles, John, William, Jeremiah, and Joseph O'Brien, for a "scholarship, preferably a graduate scholarship, for a student, or students, to be selected annually by the Faculty, who shall be deemed most suitable to profit by travel or advanced study, either in this country or abroad." (1937)

NATHAN WEBB RESEARCH SCHOLARSHIP IN ENGLISH OR ENGLISH LITERATURE: A fund of \$32,217 bequeathed to the College by Dr. Latham True in memory of his wife's father, the Honorable Nathan Webb, LL.D., the income to be used to support a scholarship of \$1,200 annually. The recipient must have received his A.B. from Bowdoin, preferably be unmarried, and use the scholarship in his study toward a Ph.D. "If deemed advisable, the said scholarship may be awarded to the same student for two or three years in succession, but no longer." (1963)

In addition to the scholarships indicated here, Bowdoin students will be nominated and placed in competition for the Rhodes scholarships, Woodrow Wilson Fellowships, and the Marshall scholar-

ships, and may apply for the Fulbright-Hays scholarships for study abroad, National Science Foundation Graduate Fellowships, and other fellowships supported by the government, foundations, or universities.

Graduate Scholarship: Law

LEE G. PAUL SCHOLARSHIP: A fund of \$30,000 given by Lee G. Paul, of the Class of 1929, the income to be used to provide financial assistance to graduates attending the Harvard University School of Law and requiring financial aid. (1964)

Graduate Scholarships: Medicine

GARCELON AND MERRITT FUND: About \$17,000 from the income of this fund, established in memory of Seward Garcelon, of the Medical Class of 1830, and Samuel Merritt, of the Medical Class of 1843, is appropriated annually for medical scholarships. The larger part of the amount is awarded to students pursuing their studies in medical schools, and the remainder may be assigned to students in the College who are taking premedical courses; but, at the discretion of the Board of Trustees, all of the income available may be assigned to students in medical schools.

Awards are made only to "worthy and struggling young men . . . in need of pecuniary aid," and preference is given to graduates and former students of Bowdoin College. Applications from men not graduates or former students of Bowdoin College, but who are residents of the State of Maine, may be considered after they have completed one year in medical school.

Applications for medical scholarships must be made upon forms furnished by the director of student aid, and must be received by the director before December 15.

Loan Funds

(As of January 31, 1970)

The following loan funds were established to assist students in unexpected circumstances to continue their college courses. Applications for loans should be addressed to the director of student aid.

Bowdoin Loan Fund (1959)
College appropriation.

\$182,040

Scholarships, Loans, and Financial Aid

75

Cummings Loan Fund (1943)	2,416
Given by George O. Cummings 1913.	
Administered by the deans.	
Davenport Loan and Trust Fund (1908)	14,606
Given by George P. Davenport 1867.	
George P. Davenport Student Loan Fund (1959)	2,744
Given by the Trustees of the Davenport Fund.	
Residents of the State of Maine, preferably graduates of Morse High School, Bath.	
Harry Fabyan Students' Aid Fund (1966)	5,099
Given by Mrs. Harry C. Fabyan.	
Administered by the president of the College.	
Guy P. Gannett Loan Fund (1941)	18,768
Given by an anonymous donor.	
Augustus T. Hatch Loan Fund (1958)	5,437
Given by the Davenport-Hatch Foundation, Inc.	
Albion Howe Memorial Loan Fund (1903)	4,795
Given by Lucien Howe 1870.	
Edward P. Hutchinson Loan Fund (1940)	687
Given by Edward P. Hutchinson 1927.	
Administered by the deans.	
William DeWitt Hyde and Kenneth C. M. Sills Loan Fund (1964)	28,004
Established by Fred R. Lord 1911.	
Administered by the president and dean of the College.	
For undergraduates, instructors, and assistant professors.	
Arthur Stephen Libby Memorial Fund (1949)	1,564
Given by Mrs. Arthur S. Libby.	
Charles W. Marston Loan Fund (1960)	5,447
Given by Mrs. Charles W. Marston.	
Meddiebempsters Loan Fund (1950)	568
Given by "The Meddiebempsters."	
Carleton P. Merrill Loan Fund (1963)	10,211
Given by Ella P. Merrill.	
New England Society Loan Fund (1947)	2,869
Given by the New England Society in the City of New York.	
President's Loan Fund (1909)	23,554
Given by various donors.	

Alfred P. Sloan Foundation Loan Fund (1960)	14,096
Given by the Alfred P. Sloan Foundation, Inc.	

In addition, under the terms of The National Defense Education Act Loan Fund, about \$916,709 has been provided by grants from the United States government and supplemented by the College in the amount of \$101,856. Loans are made as provided under Title II, Public Law 85-864 of September 2, 1958—The National Defense Education Act of 1958, as amended. (1959)

Other Student Aid Funds

John L. Roberts Fund (1958)

A fund of \$21,075 given by John L. Roberts of the Class of 1911 to assist some underprivileged scholar, other than a teacher or one contemplating teaching, to do research in any field he may choose.

Harold Hitz Burton Student Book Fund (1967)

A fund of \$7,049 given in honor and memory of the late Honorable Harold Hitz Burton, LL.D., of the Class of 1909, by members of the Bowdoin Club of Washington and others to assist needy Bowdoin undergraduates in the purchase of books required in their courses. Administered by the dean of students.

Earle S. Thompson Student Fund (1967)

A fund of \$25,000 given in honor of Earle S. Thompson of the Class of 1914 to provide administrative internships for seniors in Bowdoin's Senior Center Program.

The Curriculum

BOWDOIN does not prescribe a pattern of required liberal arts courses for all students. Instead, each student determines, with the help and approval of his academic counselor, what pattern of courses is most "liberating" for him. This practice is based on the belief that each student has come to Bowdoin to pursue seriously a liberal education. Courses, it is assumed, do not simply lead to other courses in the same subject, but properly taught they raise questions and evoke a curiosity that other disciplines must satisfy. The movement from subject to subject occurs not because it is prescribed or because continuation in the same subject is denied, but because the student finds the movement right for his intellectual needs.

Concomitant with this desire to broaden knowledge is a desire to know in depth. To that end, each student participates in a major program during the last two years. In selecting a major field in which to concentrate, the student leaves his academic counselor of the first two years to work with a member of the department in which he is to major. Although each department has specific requirements, special needs are recognized and individualized programs involving more than one department are possible.

Should a student and his adviser be unable to agree on a desirable selection of courses, a special faculty committee serves as an appeal board.

REQUIREMENTS FOR THE DEGREE

For the degree of Bachelor of Arts, a student must pass thirty-two semester courses and satisfy the requirements of his major department. He must also have been in residence at Bowdoin College for at least one year.

GENERAL REGULATIONS

1. **COURSE LOAD:** Students are required to take a minimum of four regular courses each semester.

2. **COURSE EXAMINATIONS:** The regular examinations of the College are held at the close of each semester. An absence from an examination entails the mark of zero. In the event of illness or other unavoidable cause of absence from examination, the Deans' office may authorize makeup of the examination.

3. **COURSE GRADES:** Course grades are High Honors, Honors,

Pass, and Fail. High Honors indicates a performance of outstanding quality, characterized where appropriate by originality in thought as well as by mastery of the subject at the level studied; the kind of work which leads to a degree *summa cum laude*. Honors indicates a performance which, though short of High Honors, is above the common in insight and understanding and is equal to or close to the quality of work which leads to a degree *cum laude*. Pass is a satisfactory performance consistent with standards for graduation. Fail indicates unsatisfactory work. In Independent Study courses that will continue beyond one semester, instructors shall have the option of submitting at the end of each semester except the last a grade of "S" for Satisfactory in place of a regular grade. A regular grade shall be submitted at the end of the final semester and shall become the grade for the previous semesters of Independent Study. With the approval of the Deans' office, a grade of Incomplete may be recorded in any course. If the course is not completed within one year, the Incomplete becomes permanent or changes to Fail.

4. GRADE REPORTS: A report of the grades of each student is sent to his parents or guardian at the close of each semester.

5. THE DEAN'S LIST: Students who receive Honors or High Honors for three-quarters of their grades and who receive no failures for one semester are placed on the Dean's List. For purposes of the Dean's List, Satisfactory in an Independent Study is considered as an Honor grade. Dean's List students are given certain privileges regarding attendance at classes.

6. DEFICIENCY IN SCHOLARSHIP: A student who fails three or more courses at the end of the first semester of the freshman year, or who fails two or more courses at the end of any other semester is dropped from college for one semester. A student is dropped permanently from college if he is subject to dismissal a second time for failing two or more courses.

7. MAXIMUM RESIDENCY: No student shall be permitted to remain at Bowdoin for more than nine semesters of full-time work.

8. SENIOR COURSE SELECTION: Each student shall take a course in his major department in each semester of his senior year.

THE MAJOR PROGRAM

A major program is offered by every department which has been authorized by the Faculty to do so. The departmental requirements for each major are listed in Courses of Instruction on pages 87-156.

Interdepartmental major programs, designed to meet an in-

dividual, cultural, or professional objective, may be offered if approved by the departments concerned and the Recording Committee.

Each student must choose his major by the end of his sophomore year after consultation with the department concerned. During the week preceding the spring vacation, the registrar shall post hours for faculty conferences with sophomores regarding choice of a major. No student may major in a department unless he has satisfied the department that he is able to do work of at least passing quality in its courses. Changes in major programs may take place only with the permission of the Recording Committee following the submission of a written request stating the reason for the change. Such request must also be approved by the departments concerned. A student who has not been accepted in a major department cannot continue his registration.

INDEPENDENT STUDY

With departmental approval, a student may elect a course of independent study under tutorial supervision. In most departments the project will consist of a written dissertation or an appropriate account of an original investigation, but projects in music, the fine arts, and letters are also encouraged. *Students who seek departmental honors are expected to register for at least one course in independent study and to achieve an honor grade in it.*

A department will ordinarily approve one or two semesters of independent study, for which regular course credit will be given. A definite plan for the project must be presented by the student, approved by the department, and filed in the Dean of the College's Office. The plan for a fall semester must be on file by October 1; the plan for a spring semester must be submitted in December with the registration card for spring courses. Where more than one semester's credit is sought, the project will be subject to review by the department at the end of the first semester. In special cases the Recording Committee, upon recommendation of the department, may extend credit for additional semester courses beyond two. In Independent Study courses that will continue beyond one semester, instructors shall have the option of submitting at the end of each semester except the last a grade of "S" for Satisfactory in place of a regular grade. A regular grade shall be submitted at the end of the final semester and shall become the grade for the previous semesters of Independent Study. The final corrected copy of the project must be submitted to the department before the last day of classes of the final semester of the work. *For adminis-*

trative purposes this independent study will bear one or more of the course numbers 201, 202, 203, 204, depending upon the number of course credits allowed.

THE AWARD OF HONORS

Departmental Honors

The degree with *honors*, *high honors*, or *highest honors* in a major subject is awarded to a student who has distinguished himself in that subject. The award is made by the Faculty upon recommendation of the department. It is based upon such considerations as (a) honor grades in at least a majority of major courses; (b) honor grades in any departmental special major requirements; and (c) honor grades in independent study in the major department.

All written work in independent study accepted as fulfilling honors requirements shall be deposited in the Library in a form specified by the Library Committee.

General Honors

A degree *cum laude* shall be awarded to a student who receives Honors or High Honors in three-quarters of the necessary number of Bowdoin courses presented for the degree.

To receive a degree *magna cum laude* a student shall fulfill the requirement for a degree *cum laude* with the additional requirements that at least one-quarter of his grades must be High Honors, plus one High Honors grade for each Pass grade.

A degree *summa cum laude* shall be awarded to a student who receives High Honors in at least one-half, and Honors in all his other Bowdoin courses presented for the degree.

THE SENIOR PROGRAM

In September 1964, Bowdoin College introduced a new educational program for seniors, conducted in a specially designed Senior Center. One might reasonably interpret this endeavor in either of two ways: as a bold and unprecedented innovation in college education, or as an effort to recapture some of the traditional values of the small residential college to which Bowdoin has remained dedicated in spite of growth and change. It was from both of these perspectives that Bowdoin conducted the long and careful study of undergraduate interests and needs, leading to the decision to construct the Senior Center.

In redesigning the program of the senior year, the College sought to make the senior year a more fitting culmination of liberal

study and a recognized time of transition to the assumption of larger responsibilities. The new design included curricular innovations, a variety of educational offerings outside the classroom, and an intellectually stimulating environment.

The formal academic portion of the Senior Program includes seminars and an increased emphasis upon independent study. The major program in a department chosen by the student, including honors work for qualified seniors, and elective courses in various fields of study continue as in the past to be fundamental parts of the educational experience of the senior year.

Each senior may enroll in one seminar in the fall semester, and he may, if he wishes, elect to take a second seminar in the spring semester. Carrying academic credit, the seminars count toward the degree requirements as do traditional courses. Each seminar consists of one or more instructors and approximately fifteen students, who explore in some depth a problem within an area of learning. Penetrating analysis is expected rather than the accumulation of a wide range of information such as might be sought in an introductory course.

The variety of subjects offered in the seminar program enables each student to explore one or more fields of special interest to him. The seminar or seminars must be outside his major field. This gives the student some of the satisfaction of intensive work in areas other than that of his specialty. A list of the seminars scheduled for 1970-1971 is given on pages 155-156.

The Senior Center is designed as a community of scholars whose educational growth is not restricted to the classroom. A residence for the director of the Senior Center and his family is provided as an integral part of the Center. Two faculty members and a number of foreign teaching fellows also have living quarters in the Center, so that they can maintain close contact with the seniors. Guest suites for lecturers and other visitors from outside Bowdoin enable the Center to invite a variety of persons to come for extended visits, during which individual conferences and small group discussions can be held. Often a lecturer whose specialty is related to the subject of one of the seminars presents a public lecture of general interest, meets with members of one of the Senior Seminars for a more specialized encounter, and holds discussions with interested students in his guest suite, in the Senior Center dining hall, or in one of the small meeting rooms of the Center. Musical, dramatic, and artistic events take place in the Center, with students sometimes as spectators, sometimes as participants.

To assist the senior with his career planning, the Senior Center,

in cooperation with the Office of Career Counseling and Placement and the various academic departments of the College, conducts a broad advisory program of career and graduate study guidance. Bowdoin alumni and others representing many careers are invited to the Center to advise students who show interest in pursuing similar callings. The Center maintains a library of catalogues and other materials pertaining to graduate study in all fields of interest to Bowdoin students. A special effort is made to draw into this aspect of the Senior Program not only seniors but all undergraduates as they make plans for work and study following graduation.

The Center consists of three buildings designed by the distinguished architect Hugh Stubbins. The tower, sixteen floors in height, includes living and study quarters for all seniors, as well as seminar and conference rooms, lounges, a reading room, one of three guest suites, and offices. The dormitory floors each accommodate sixteen students, grouped in four-man suites. Each student has a private bedroom-study, and four share a corner living room. The students form their own groups of four in the spring of their junior year and draw numbers to determine priority of choice of suites.

Wentworth Hall, a two-story building adjacent to the tower, includes a dining room, kitchen, main lounge, and four small meeting rooms. The third building, Chamberlain Hall, is the home of the director and also contains the other two guest suites, as well as a dining room for use on special occasions by small groups of students, professors, and guests of the College.

The director of the Senior Center is a member of the Faculty who combines teaching duties with his supervision of the program. He works with a Senior Center Council consisting of the dean of the Faculty and three members of the Faculty appointed by the president.

The Council is assisted by a Student Committee for the Senior Center. This committee consists of the three elected class officers and may include additional members chosen by the seniors.

SPECIAL PROGRAMS

I. AFRO-AMERICAN STUDIES

No college aspiring to offer liberal education to its students at this time in history can remain indifferent to the problem of black-white relations in this country. Along with many other colleges and universities, Bowdoin has acknowledged that the traditional liberal arts curriculum has given inadequate attention to serious study of this problem. Therefore, the Faculty in the spring of 1969 author-

ized the addition of Afro-American studies to the curriculum.

The new program has been created by the Committee on Afro-American Studies, which is composed of five members of the Faculty and five students. The chairman of the committee is the program director. Under his leadership, the committee has created two multidisciplinary problem-centered courses, which constitute the nucleus of the major in Afro-American Studies. Students complete their selections of major courses from a list of regular offerings, in other departments, approved by the committee. (See pages 87-88).

II. ENVIRONMENTAL STUDIES

For several years a number of courses in the Bowdoin curriculum have dealt with one or more aspects of environmental problems. Recently the Bowdoin Faculty has broadened its concern with environmental studies by voting to establish a continuing faculty-student committee to deal with the subject. One of the tasks of this committee will be to develop an upper-level, interdisciplinary course in environmental studies for qualified students in 1971-1972. Participants in that course will be expected to have a strong background, and to have developed some problem-solving techniques, in an existing major discipline.

Beginning in 1970-1971, it will be possible for students with particular interests in Environmental Studies and Economics to frame a joint-major in these fields. The chairman of the Department of Economics should be consulted for details.

III. COLEMAN FARM INDEPENDENT STUDIES EXPERIMENT

To test the possibility that the creative student will function better in an environment radically different from that of college dormitories and fraternities, the Faculty, in 1969, approved a one-year experiment whereby six Bowdoin students, all members of the Class of 1972, would pursue study programs composed of two Independent Study courses and two regular courses while living at the Coleman Farm, which is owned by the College and located within five miles of the campus. Each student's program and performance was supervised and evaluated by the Recording Committee of the Faculty. Although the students were released from some of the usual college requirements, they met the requirements for their major department when they selected their majors before the start of their junior year. The success of the program has prompted the College to continue it for a second year. John McKee, lecturer in art, is the informal supervisor of the program.

IV. PREENGINEERING PROGRAMS

Students desiring to enter the profession of engineering may qualify for the degree of Bachelor of Arts from Bowdoin College and also for a degree in engineering in a total of five years (instead of the six years normally necessary for both degrees) by completing one of the joint programs described below. After three years of study at Bowdoin, students become eligible for recommendation to the cooperating engineering institutions provided that sufficiently good grades have been achieved in the prescribed courses; in most instances honor grades will be required for recommendation by the College. Students wishing to avail themselves of one of these plans should notify the Dean's Office of Bowdoin College at the beginning of their freshman year because the programs require a very definite pattern of courses.

Bowdoin-California Institute of Technology Three-Two Plan

Students enrolled in the California Institute of Technology Combined Plan take mathematics and physics in all three years and chemistry in sophomore and possibly junior years, depending on the courses contemplated at C.I.T.

Recommended students are assured of admission to C.I.T. as juniors. The Bowdoin degree will be awarded to such students upon notification from the Institute that they have received their degrees from C.I.T.

Bowdoin-Columbia School of Engineering Combined Plan

Students enrolled in the Columbia Combined Plan are encouraged to take their Bowdoin electives in the general, broad liberal arts field. They must, however, complete two years of mathematics and three or more years of physics and chemistry, the distribution between the two sciences depending upon the type of engineering contemplated. Recommended students are assured of admission to the School of Engineering as juniors after a five to eleven weeks' summer school at Camp Columbia. The Bowdoin degree will be awarded to such students upon notification from the School of Engineering that they have received their degrees from Columbia.

Bowdoin-Massachusetts Institute of Technology Two-Degree Plan

Since 1937 Bowdoin College has been sending students to the Massachusetts Institute of Technology under conditions similar to those of the plans listed above. At present, because of the large number of colleges participating, M.I.T. reserves the right to scru-

tinize the records of all students applying for transfer before granting admission.

Students enrolled in the M.I.T. Two-Degree Plan take mathematics and physics in all three years and chemistry in sophomore and possibly junior years, depending upon the courses contemplated at M.I.T. Recommended students enter M.I.T. as juniors after, in some cases, an intervening summer term. The Bowdoin degree will be awarded to such students upon notification from the Institute that they have received their degrees from M.I.T.

Programs under this plan can be arranged in architecture, city planning, food technology, geophysics, industrial management, quantitative biology, and science teaching, as well as in the various branches of engineering.

V. PREMEDICAL STUDIES

Students contemplating the study of medicine are advised to arrange their undergraduate course as early as possible, with this end in view. Premedical students should take college courses in biology, chemistry, and physics to satisfy the requirements for admission to medical schools.

VI. TEACHING

A Faculty Committee on Teaching as a Career exists to advise students about preparation for school teaching and for such graduate programs as those offering a master of arts in teaching degree. Advice about college and university teaching is primarily the concern of the student's major department because it will involve plans for doctoral work in his major field.

Students interested in teaching in schools should discuss their plans with the members of the Faculty Committee on Teaching as a Career. Since the normal advice will be that a student include courses in psychology and education along with a major in a teaching field, he should make his interest known as early as possible.

VII. TWELVE-COLLEGE EXCHANGE

Bowdoin has joined with Amherst, Connecticut College, Dartmouth, Mount Holyoke, Smith, Trinity, Vassar, Wellesley, Wesleyan, Wheaton, and Williams to form the Twelve-College Exchange program.

Through the pooling of the resources of these colleges, the opportunity exists to construct an unrivaled educational opportunity for students. The full implications of the exchange are as yet incomplete, but beginning with the 1969-1970 academic year the partici-

pating colleges agreed to exchange students, most of whom are juniors. About twenty Bowdoin students are in the program.

Bowdoin students wishing to participate in the exchange for the 1971-1972 academic year should make application to the Recording Committee of the Faculty. Detailed information on the course offerings of the participating colleges is available from the Office of the Dean of the College. Application is normally made for two semesters. It is hoped that the exchange will afford students the opportunity to take courses which are not offered on their own campus or to study specialized aspects of their major field of concentration with faculty members who have achieved preeminence in that specialty.

Under terms of the exchange both men and women students may attend any of the participating colleges, regardless of whether the college they seek to attend normally matriculates students of their sex. Course work satisfactorily completed at any of the participating colleges will receive credit toward a degree at the student's "home" college.

VIII. OFF-CAMPUS STUDY

Although Bowdoin does not have an urban center away from the campus or a special overseas program, a number of students participate successfully in a variety of urban and overseas programs sponsored by other institutions and organizations. Information on these programs is available in the Deans' office. Approval for participation is given by a Faculty committee upon recommendation of a student's major department. Where a foreign language is involved, the approval of the department concerned is also required.

Courses of Instruction

ARRANGEMENT: The departments of instruction in the following descriptions of courses are listed in alphabetical order.

TIME AND PLACE OF CLASSES: A schedule containing the time and place of the meeting of all courses will be issued before each period of registration.

YEAR COURSES: Courses marked with an asterisk are year courses, and if elected, must be continued for two consecutive semesters.

BRACKETED COURSES: All courses that cannot be scheduled for a definite semester are enclosed in brackets.

INDEPENDENT STUDY: See pages 79-80 for a description of this course.

Afro-American Studies

REQUIREMENTS FOR THE MAJOR IN AFRO-AMERICAN STUDIES: A major consists of ten course units, of which six must be *History* 13, 14, and *Afro-American Studies* 5-6 and 7-8. The remaining four courses must be selected from a list of courses approved by the Committee on Afro-American Studies. Courses approved for inclusion in the Afro-American Studies major for 1970-1971 are: *Afro-American Studies* 200; *Art* 27; *Economics* 10, 12; *Education* 2; *English* 22, 36; *Government* 5, 21; *History* 20, 21, 34; *Interdepartmental Course* 1; and *Sociology* 6, 8.

*5-6. *Problems in Afro-American Life*. Offered every year. MR. LEWIS of the Departments of History and Government.

A study of psychological, social, economic, and political forces which influence the experiences and life styles of Afro-Americans as individuals in a subculture in the United States. This seminar will help the student to synthesize his previous course work and will provide a significant research and bibliographic undertaking for him in the literature of Afro-American Studies.

Prerequisites: *History* 13, 14, and the approval of the faculty members of the Committee on Afro-American Studies.

*7-8. *Public Policy and Social Change*. Offered every year. MR. LEWIS of the Departments of History and Government.

A research seminar on the critical problems of social change as they relate to the Afro-American community. The objec-

tives are to make public policy recommendations and to construct subsystem models in education, economics, and politics.

Prerequisites: *Afro-American Studies* 5-6 and the approval of the faculty members of the Committee on Afro-American Studies.

200. *Independent Study.*

Art

PROFESSOR BEAM, *Chairman*; VISITING PROFESSOR GHIKAS;
ASSOCIATE PROFESSOR CORNELL; ASSISTANT PROFESSOR STODDARD;
LECTURERS MR. MCKEE AND MR. TERRIEN; AND MR. WEST

REQUIREMENTS FOR THE MAJOR IN ART: A major consists of six semester units chosen from the regular courses offered by the department. These shall include *Art* 1, 2, taken not later than the junior year, and two additional courses in the history and criticism of art: *Art* 21 through 30. Major students may complete the requirement of six semester units either by taking two further courses in the history of art or by enrolling in two of the studio courses: *Art* 41, 42 or *Art* 43, 44. Students who intend to major in art should, if possible, take *Art* 1, 2 in their freshman year. Those students who are interested in studio instruction should, similarly, take *Art* 41, 42 and *Art* 43, 44 as soon as their schedules permit.

1. *General Introduction to the History and Appreciation of Art.* Offered every year. Fall 1970. MR. STODDARD.

An introduction to the language, criticism, and history of the visual arts. Emphasis initially will be given to the terminology and nature of architecture, sculpture, and painting, using actual objects wherever possible. Several periods, including the present, will be studied to define developments in Western art and explain in part the art of the twentieth century. No previous experience in the visual arts is required.

Open to all students; freshmen with the permission of the instructor. Recommended especially for those students who are considering majoring in art, with interest in art history, studio work, or architecture.

2. *Continuation of Course 1.* Spring 1971. MR. BEAM.
Prerequisite: *Art* 1.

21. *The Art of Antiquity.* Fall 1970. MR. BEAM.

A general study of architecture, sculpture, and painting in Egypt, Mesopotamia, and southern Europe during ancient

times, with emphasis upon the art of ancient Greece, and concluding with the art of Rome.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

22. *Medieval Art*. Spring 1971. MR. STODDARD.

A study of medieval art of the early Christian era, Byzantine art, Barbaric art, Ottonian and Romanesque, and the art and architecture of late Gothic cathedrals in France, England, Germany, Italy, and Spain. Emphasis also on manuscript illumination, ivory carving, metalwork, and stained glass, examples of which will be studied in Boston collections.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

23. *European Art of the Renaissance*. Fall 1971. MR. STODDARD.

A study of the Italian Renaissance, beginning with origins in the painting, sculpture, and architecture of the central Italian city republics. Innovations of Duccio, the Lorenzetti, and Giotto. Early and High Renaissance art in Florence, Milan, Rome, and Venice, including the masters Donatello, Da Vinci, Raphael, Michelangelo, Bramante, and Titian. Mannerism. Emphasis also on development of Italian cities and villas in the sixteenth century.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

[24. *European Art of the Seventeenth and Eighteenth Centuries*.]

25. *European Art of the Nineteenth Century*. Fall 1971. MR. BEAM.

The course will treat the main movements in European painting, drawing, and sculpture from the late eighteenth century to 1900 and such great exemplars of neoclassicism, romanticism, realism, impressionism, and postimpressionism as David, Ingres, Delacroix, Goya, Daumier, Manet, Monet, Degas, Cezanne, Van Gogh, Renoir, and Toulouse-Lautrec. Attention will also be given to the social, political, and architectural movements which provided the background for painting and sculpture in this period.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

26. *Art of the Twentieth Century*. Spring 1972. MR. STODDARD.

A study of European and American painting and sculpture which will deal initially with developments in Europe in the

first decade of this century, including the influence of ethnographic primitive art, Picasso and Cubism, surrealism, cinematography, Piet Mondrian, nonobjective art, and recent movements in contemporary American art.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

27. *American Art*. Fall 1970. MR. BEAM.

The course will consider the main developments of art in America, with special emphasis upon painting and sculpture from colonial times to 1900, and a review of the principal architectural movements up through the time of Henry Hobson Richardson. Such outstanding artists as Gilbert Stuart, Homer, Eakins, Sargent, and Whistler will be studied carefully. The contribution of black artists to American art will also be studied. The course will conclude with a survey of the continuation of the American realistic tradition in painting in our own time.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

28. *Modern Architecture*. Spring 1971. MR. STODDARD.

Devoted to the major trends of modern architecture since the beginning of the Industrial Revolution, with special attention to such leaders in the field as Sullivan, Frank Lloyd Wright, LeCorbusier, Saarinen, Mies Van der Rohe, Kahn, Gropius, The Architects Collaborative, Stubbins, Breuer, and The Cambridge Seven.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

30. *The Art of the Orient*. Spring 1972. MR. BEAM.

A study of the architecture, sculpture, and painting of the Near and Far East, especially Persian painting, Indian sculpture, Chinese painting and sculpture, and Japanese painting, prints, and architecture. Attention will also be given to ceramics, bronze casting, jade carving, and other minor arts in which the Orient has excelled.

Open without prerequisite to juniors and seniors. Open also to sophomores who are taking *Art 1, 2* concurrently.

41. *Fundamentals of Composition*. Fall 1971. MR. CORNELL.

A study of the basic principles of composition in drawing and painting in two three-hour meetings weekly in classroom and studio. Problems in composition will be related to a study

of major types of composition found in the history of art. No previous training is necessary.

Prerequisite: Consent of the instructor.

42. *Continuation of Course 41*. Spring 1972. MR. CORNELL.

A study of two- and three-dimensional design in the visual arts with emphasis on principles of design and their historical expression. Classroom discussions and studio practice.

Prerequisite: *Art 41* or consent of the instructor.

43. *An Introduction to Drawing and Painting*. Fall 1970. MR. GHIKAS.

An elementary study of the principles of drawing and painting, augmented by practice in the studio with various media of drawing, painting, and the graphic arts. Two three-hour meetings weekly in classroom and studio.

Prerequisite: Consent of the instructor.

44a. *Continuation of Course 43*. Spring 1971. MR. TERRIEN.

A study of two- and three-dimensional design in the visual arts with emphasis on principles of architectural design and their historical expression. Classroom discussions and studio practice.

Prerequisite: *Art 41* or consent of the instructor.

44b. *Seminar in Principles of Photography*. Spring 1971. MR. MCKEE.

Weekly meetings and discussion.

Prerequisite: Consent of the instructor.

NOTE: Some supervision of independent studies (200 courses) in photography will be available for experienced students during the fall semester, 1970. Consult MR. MCKEE.

200. *Independent Study*. THE DEPARTMENT.

Biology

PROFESSOR GUSTAFSON; PROFESSOR MOULTON, *Chairman*;
PROFESSOR HUNTINGTON; ASSOCIATE PROFESSOR HOWLAND;
AND ASSISTANT PROFESSORS KNOWLTON AND SETTLEMIRE -

REQUIREMENTS FOR THE MAJOR IN BIOLOGY: The major consists of six semester courses in the department exclusive of courses in the 200 series. Major students are required to complete *Chemistry 21*, a year of college mathematics, and *Physics 11, 12*.

1, 2. *General Biology*. Offered every year. THE DEPARTMENT.

An examination of fundamental biological phenomena,

theories, and principles based upon material selected from both the plant and animal kingdoms. Special attention is given to the methods of scientific investigation, the relationship of biology to other fields of endeavor, and to man and his environment. Representative organisms and their functions are studied in the laboratory. Lectures and three hours of laboratory work each week.

The department strongly recommends a year of chemistry as a preparation for *Biology 1, 2*. Advanced courses in the department are open to students who have had a year of biology in school or college. Students entering college with advanced standing, with two years of secondary school biology, or who are otherwise qualified should register for advanced courses.

3. *Comparative Anatomy of the Vertebrates*. Offered every fall. MR. MOULTON.

A survey of vertebrate morphology. Emphasis will be placed upon the evolution of mammalian organ systems. Laboratory work will consist of dissection and study of comparable systems in representative vertebrates. Lectures, conferences, and three hours of laboratory work each week.

Prerequisite: *Biology 1, 2* or equivalent.

4. *Microbiology*. Offered every spring. MR. SETTLEMIRE.

A study of the structure, function, and nutrition of microorganisms from a molecular approach, and discussions of the principles of immunology. Laboratory work includes the basic techniques of identifying and culturing microorganisms and metabolic and growth experiments using radioactive techniques.

Prerequisites: *Biology 1, 2* or equivalent and *Chemistry 21*.

5. *Vertebrate Histology*. Offered every other spring. Spring 1971. MR. MOULTON.

A survey of the microscopic anatomy of animal cells and tissues. Course material includes the characteristic microscopic structure of the various body tissues. An examination is made of the possible relations of structure and function within the tissues. Opportunity for practice in technique of tissue preparation is provided as part of the laboratory work. Lectures, conferences, and three hours of laboratory work each week.

Prerequisite: *Biology 1, 2* or equivalent.

6. *Embryology*. Offered every other spring. Spring 1972. MR. MOULTON.

A study of the experimental and descriptive biology of animal gametes and embryos, from gametogenesis to advanced stages. The principles of embryological development as shown by both invertebrate and vertebrate organisms with special attention to problems of differentiation. Laboratory work includes observations and experiments with living eggs and embryos as well as with prepared mounts and sections, graphic reconstruction of chick embryos, and studies of mammalian development. Lectures, conferences, and three hours of laboratory work each week.

Prerequisite: *Biology* 1, 2 or equivalent.

7. *Biochemistry*. Offered every spring. MR. HOWLAND.

An introduction to the study of enzymes and enzyme systems. Emphasis will be placed upon mechanisms of enzyme catalysis and upon selected topics in metabolism. Lectures, demonstrations, and use of the PDP-10 for model studies.

Prerequisite: *Chemistry* 21.

9. *Genetics*. Offered every fall. MR. GUSTAFSON.

A survey of the development of ideas on variation and heredity, the physical basis of inheritance, applications to plant and animal breeding, relationships of genetics to the theories of evolution, inheritance in man. Laboratory work in experimental breeding as well as molecular aspects of genetics. Lectures, conferences, and three hours of laboratory work each week.

Prerequisite: *Biology* 1, 2 or equivalent.

[10. *Ornithology*.]

11. *Invertebrate Zoology*. Offered every fall. MR. KNOWLTON.

A survey of invertebrate animals—their varieties, morphology, development, evolution, and behavior. Laboratories include the study, through dissection and experiments, of representative invertebrates of each group considered so far as possible. A series of field trips emphasizes the study of invertebrate habitats and associations. Lectures, field trips, and three hours of laboratory work each week.

Prerequisite: *Biology* 1, 2 or equivalent.

12. *Biology of Plants*. Offered every spring. MR. GUSTAFSON.

A brief survey of the plant kingdom with emphasis on the fundamental principles and problems of botany. Laboratory work includes an examination of varied material from all groups of plants, supplemented by field trips investigating

the local flora. Lectures and three hours of laboratory work each week.

Prerequisite: *Biology* 1, 2 or equivalent.

[13. *Ecology*.]

15. *Cell Physiology*. Offered every fall. MR. SETTLEMIRE.

A study of the fundamental nature of cells and subcellular structures. An examination will be made of the cell environment, the exchange of materials across membranes, energy conversion and utilization, cell excitation and contraction, and growth and cell division. Laboratory experiments will emphasize the methods of modern research. Lectures and three hours of laboratory work each week.

Prerequisites: *Biology* 1, 2 or equivalent and *Chemistry* 21.

16. *General Physiology*. Offered every spring. MR. KNOWLTON.

A study of the functional aspects of organ systems and of organisms as a whole. Lectures, conferences, and three hours of laboratory work each week.

Prerequisites: *Biology* 1, 2 or equivalent and *Chemistry* 21, or the consent of the department.

200. *Independent Study*. THE DEPARTMENT.

Chemistry

PROFESSOR MAYO, *Chairman*; VISITING PROFESSOR LIPPINCOTT;
ASSOCIATE PROFESSOR BUTCHER; AND ASSISTANT PROFESSORS
WHEATLAND, HYAMS, MATHIS, AND SETTLEMIRE

REQUIREMENTS FOR THE MAJOR IN CHEMISTRY: The required courses consist of *Chemistry* 11, 12, 21, 22, 31, 32, 42, and three advanced courses approved by the department. The department is able to offer a variety of programs to prospective majors depending on individual interests and students are encouraged to discuss their plans with the department as soon as possible so that a suitable program may be arranged. The department holds informal meetings designed to introduce interested students to the chemical literature; seminars by students, faculty, and outside speakers are also presented during the year.

11. *Principles of Chemistry*. Offered every fall. MESSRS. WHEATLAND AND MATHIS.

A survey of the fundamental concepts of chemistry. The properties of chemical substances and the dynamics of chemi-

cal change will be treated in class. There will be ample opportunity in this course for students with adequate preparation to pursue projects of interest on an individual basis. Laboratory work will emphasize quantitative procedures. Lectures, conferences, and four hours of laboratory work a week.

12. *Elementary Organic Chemistry*. Offered every spring. MR. MAYO.

An introduction to the chemistry of the compounds of carbon. This course forms a foundation for further work in organic chemistry and biochemistry. Lectures, conference, and six hours of laboratory work a week.

Prerequisite: *Chemistry* 11 or 15.

- [15. *Advanced General Chemistry*.]

21. *Organic Chemistry*. Offered every fall. MR. MAYO.

A continuation of the study of the compounds of carbon. *Chemistry* 12 and 21 cover the material of the usual course in organic chemistry and form a foundation for further work in organic chemistry and biochemistry. Lectures, conference, and six hours of laboratory work a week.

Prerequisite: *Chemistry* 12.

22. *Fundamentals of Inorganic and Analytical Chemistry*. Offered every spring. MESSRS. WHEATLAND AND SETTLEMIRE.

A survey of general principles of inorganic and analytical chemistry. The laboratory consists of basic inorganic preparations with subsequent analyses of the products. Lectures, conference, and six hours of laboratory a week.

Prerequisite: *Chemistry* 21.

31. *Physical Chemistry I*. Offered every fall. MR. LIPPINCOTT.

An introduction to thermodynamics and its application to problems of chemical interest including the solid, liquid, and gaseous states; equilibrium; electrochemistry; and kinetics.

Prerequisites: *Chemistry* 22, *Physics* 11, 12, *Mathematics* 11, 12, or consent of the instructor.

32. *Physical Chemistry II*. Offered every spring. MR. HYAMS.

An introduction to quantum mechanics with applications to the determination of molecular structure and the theory of the chemical bond.

Prerequisite: *Chemistry* 31 or consent of the instructor.

- [41. *Advanced Analytical Chemistry*.]

42. *Inorganic Chemistry*. Fall 1970. MR. HYAMS.
A study of the structures, properties, reaction mechanisms, and syntheses of inorganic compounds.
Prerequisite: *Chemistry* 31, 32.
43. *Qualitative Organic Chemistry*. Fall 1970. MR. MAYO.
A study of the properties of organic compounds as a means to their identification, singly and in mixtures.
Prerequisites: *Chemistry* 21 or consent of the instructor.
44. *Advanced Organic Chemistry*. Spring 1971. MR. MATHIS.
An introductory study of the reaction mechanisms of organic and bio-organic chemistry. A number of the following topics will be discussed: kinetics; reaction rate theory; catalysis; nucleophilic substitution; elimination reactions; electrophilic substitution; addition to carbon-carbon double bonds, ketones, and aldehydes; and radical chain reactions.
Prerequisites: *Chemistry* 21, 31, 32 or consent of the instructor.
45. *Advanced Physical Chemistry*. Fall 1972. MR. HYAMS.
The material to be covered will depend upon the interests of the students.
Prerequisite: *Chemistry* 31, 32 or consent of the instructor.
46. *Special Topics in Chemistry*. Fall 1971. MR. MATHIS.
The material to be covered will depend upon the interests of the students.
Prerequisites: *Chemistry* 44 or consent of the instructor.
200. *Independent Study*. THE DEPARTMENT.

Classics

PROFESSOR DANE, *Chairman*; AND ASSISTANT PROFESSOR AMBROSE

REQUIREMENTS FOR THE MAJOR IN CLASSICS, GREEK, OR LATIN: A major in classics consists of eight units to be chosen equally from the departmental offerings in Greek and Latin, except *Greek* 1 and *Latin* 1, 3, and 4. A major in Greek consists of any six units in Greek, except *Greek* 1. A major in Latin consists of any six units in Latin except *Latin* 1, 3, and 4.

Greek

1. *Elementary Greek*. Offered every fall. MR. AMBROSE.
A thorough presentation of the elements of accidence and

syntax based, insofar as possible, on unaltered passages of Classical Greek.

2. *Continuation of Course 1.* Offered every spring. MR. AMBROSE.
In the latter half of the term a work of historical or philosophical prose will be read.
3. *Plato.* Offered every fall. MR. DANE OR MR. AMBROSE.
4. *Homer.* Offered every spring. MR. AMBROSE.
5. *Selected Greek Authors.* Offered every fall. MR. AMBROSE.
The course is designed to meet the needs of advanced students in Greek literature, with extensive readings from representative authors in such fields as drama; history; philosophy; lyric, elegiac, and epic poetry; and oratory. *The course may be repeated for credit with contents changed.*
6. *Continuation of Course 5.* Offered every spring. MR. AMBROSE.

Latin

[1. *Elementary Latin.*]

3. *Cicero.* Offered every fall. MR. DANE.
A rapid review of grammar followed by reading in a philosophical essay.
Prerequisite: *Latin 1* or two years of secondary school Latin.
 4. *Vergil. The Aeneid.* Offered every spring. MR. DANE OR MR. AMBROSE.
Prerequisite: *Latin 3* or its equivalent.
 5. *Horace and Catullus.* Offered every fall. MR. AMBROSE.
Prerequisite: *Latin 4* or its equivalent.
 7. *Selected Latin Authors.* Offered every fall. MR. DANE.
The course is designed to meet the needs of advanced students in Latin literature, with extensive readings from representative authors in such fields as satire, drama, philosophy, history, and elegy. *The course may be repeated for credit with contents changed.*
 8. *Continuation of Course 7.* Offered every spring. MR. DANE.
200. *Independent Study.* THE DEPARTMENT.

Economics

PROFESSORS ABRAHAMSON AND DARLING; PROFESSOR SHIPMAN,
Chairman; ASSOCIATE PROFESSOR FREEMAN; ASSISTANT
PROFESSORS HANIS, HOPKINS, THORNDIKE, AND VAIL; AND
LECTURER MR. HOKANSON

REQUIREMENTS FOR THE MAJOR IN ECONOMICS: A major consists of *Economics* 1, 2, 3, 5, 6, and three other units approved by the department. One of the three electives may be chosen with the consent of the department from among courses in related disciplines. Students planning to go on to graduate study in economics should consult the chairman of the department before choosing among electives.

Starting in 1970-1971, the department is prepared to offer a modified major for those students considering work in environmental studies. The chairman should be consulted for details.

It is the policy of the department to require that seniors take an integrative essay examination in the fall semester and the Undergraduate Record Examination in Economics in the spring semester of the senior year.

1. *Principles of Economics*. Offered every semester in sections of 20-30 students each. THE DEPARTMENT.

A study of fundamental economic concepts, relationships, and institutions, with emphasis on analytical methods.

2. *Applications of Economic Principles*. Offered every spring in sections of 10-30 students each. THE DEPARTMENT.

A study of selected contemporary problems and the way in which economic principles and policies can aid in their solution.

Prerequisite: *Economics* 1.

3. *Statistics*. Offered every fall. MR. HANIS.

An introduction to statistical theory and descriptive methods applied to typical research problems in economics. Laboratory work will involve individual student use of instructional computer programs. No prior computer experience is required.

Prerequisites: *Economics* 1 and *Mathematics* 12 or 14, or consent of the instructor.

4. *Accounting and the Analysis of Financial Statements*. Offered every spring. MR. HOKANSON.

This course aims to acquaint the student with accounting analysis as an important working tool for the business executive, the public administrator, and the economic researcher. Consideration is given to such subjects as the preparation and interpretation of financial statements, the nature of income, the valuation of assets, depreciation, and reserves.

Prerequisites: *Economics 1* and consent of the instructor.

5. *Economic Analysis I*. Offered every fall. MR. FREEMAN.

An advanced study of contemporary price theory focusing on such elements as the household and the firm and their behavior in relation to prices and quantities produced under various market conditions. Both actual and optimal patterns of resource allocation and income distribution will be examined. The course will include an introduction to welfare economics and to linear programming, input-output analysis, and other modern analytical techniques.

Prerequisite: *Economics 1*.

6. *Economic Analysis II*. Offered every spring. MR. HOPKINS.

An advanced study of contemporary national income and growth theory with primary emphasis on the relationships among consumption, investment, government receipts and expenditures, money and interest rates, and their role in determining the level of aggregate economic activity. Some attention will be given to policy implications of the analysis.

Prerequisite: *Economics 1*.

7. *International Economics*. Spring 1971.

A study of the theory and practice of foreign trade, balance of payments, international movements of capital, and governmental policies with regard to international economic affairs generally.

Prerequisite: *Economics 1*.

8. *Economic History and Development*. Fall 1971. MR. SHIPMAN.

An advanced study of economic growth and industrialization in the West, combining development theory and institutional history. Emphasis is placed on Great Britain from 1750 to 1850 and the United States from 1790. A general knowledge of European and American history is assumed.

Prerequisite: *Economics 1*.

9. *Economics of Money, Banking, and Finance*. Fall 1971. MR. DARLING.

The general principles and institutions of money, banking,

and financial markets as they relate to the performance of the economic system. Current problems concerning financial institutions, the flow of funds into investment, the Federal Reserve System, and the use of monetary and financial controls will be considered.

Prerequisite: *Economics* 1.

10. *Economics of the Public Sector*. Fall 1970. MESSRS. HOPKINS AND THORNDIKE.

A study of U. S. federal and state government revenue and expenditure policies as they affect resource allocation. Primary attention is given fiscal problems associated with public goods and externalities, and general aspects of tax policy.

Prerequisite: *Economics* 1.

- [11. *Industrial Organization*.]

12. *Labor and Manpower Economics*. Fall 1970. MR. ABRAHAMSON.
The problems surrounding unionism, collective bargaining, unemployment, and manpower utilization are considered from the viewpoints of labor, management, and the public.

Prerequisite: *Economics* 1.

13. *History of Economic Thought*. Fall 1970. MR. SHIPMAN.

A comparative study of the "worldly philosophers" from the seventeenth century onward. Special attention is given to the historical development of those ideas and concepts now constituting the core of economic analysis, and to the relation such ideas bear to the mainstream of intellectual history.

Prerequisite: *Economics* 1.

14. *Economic Systems and Planning*. Fall 1971. MR. VAIL.

A study of alternative methods of economic organization in the modern world. Special consideration is given to the economics of central planning in the Soviet Union, to various types of indicative planning in Western Europe, and to planning problems specific to the developing nations.

Prerequisite: *Economics* 1.

15. *Public Enterprise and Regulation*. Spring 1972. MR. SHIPMAN.

The economic origins, methods, and consequences of public ownership and control of economic activity. Primary attention is given to urban and intercity transportation, electric power supply and the communications industries.

Prerequisite: *Economics* 1.

16. *Econometrics and Simulation*. Spring 1971. MR. HANIS.

An application of elementary mathematics, statistics, and computer simulation to the study of past and alternative future economic relations. Special emphasis will be given to the use of existing social science information and computing systems. Students are expected to enter the course with advanced programming skills in the language BASIC and with at least some knowledge of FORTRAN.

Prerequisites: *Economics* 1, and *Economics* 3 or *Mathematics* 26 or 30, and consent of the instructor.

- 19, 20. *Contemporary Problems*.

Topics include urban economics, population problems, conservation and the quality of the environment, the economics of health and education, economic fluctuations and forecasting, social and economic implications of science, the problems of economic growth in poor nations, and the economics of poverty in America.

Prerequisites, if any, are determined by the instructor.

Spring 1971: 19. *Problems of Economic Growth in Underdeveloped Areas*. MR. VAIL.

A study of the problems of growth and development in less industrialized parts of the world. Special attention is given to the experience of Africa and to the role of planning and systems in those countries.

Prerequisite: *Economics* 1.

Fall 1970: 20. *Resources, Conservation, and the Quality of the Environment*. MR. FREEMAN.

A study of the economic meaning of conservation and preservation, and of the relationships among man's use of the environment as a source of resources, a place for recreation, and a receptacle for wastes. Included is an examination of the adequacy of natural resources to meet the future demands of the U. S. and the world as a whole, and an investigation into the problems of air, water, and land pollution.

Prerequisite: *Economics* 1 or consent of the instructor.

200. *Independent Study*. THE DEPARTMENT.

Education

PROFESSOR HAZELTON, *Chairman*

1. *History of Education*. Offered every fall.

A study of the development of education, chiefly in the United States, in its social and cultural setting.

2. *Education in the Twentieth Century*. Offered every spring.

A study of the purposes, the organization, and the government of modern educational systems. The main emphasis is given to these aspects of American education, but comparative studies of the English system form a substantial part of the course.

Prerequisite: *Education 1* or consent of the instructor.

5. *Secondary Education*. Fall 1970.

An analysis of problems of policy and practice in secondary education. Special attention is given to the development of public policy in American education.

Prerequisite: *Education 2* or consent of the instructor.

6. *Teaching*. Spring 1971.

A study of the process of teaching, the organization of subjects, and the teacher's profession. Part of the work of the course consists of observation in secondary schools.

Prerequisites: An appropriate sequence of courses in psychology and education, and consent of the instructor.

200. *Independent Study*.

NOTE: Undergraduates considering a career in teaching should make their interest known to Mr. Hazelton as soon as possible.

On page 85 there is a further discussion of careers in teaching.

English

PROFESSORS BROWN, HALL, GREASON, AND COXE; ASSOCIATE PROFESSOR REDWINE, *Chairman*; ASSOCIATE PROFESSOR COURSEN; ASSISTANT PROFESSORS BURROUGHS, PALUSKA, AND IKELER

REQUIREMENTS FOR THE MAJOR IN ENGLISH AND AMERICAN LITERATURE: A major consists of ten courses including a Junior Major Tutorial (*English 60*), a Senior Major Tutorial (*English 61*), and eight semester courses as follows: At least one semester unit is required from each of four groups: (1) *English 10, 11, or 12*; (2) *13 or*

14; (3) 15, 16, or 17; (4) 18, 19, or 20. Four additional units may be chosen from the foregoing and/or *English* 1, 2 (Freshman-Sophomore Seminars,* not more than two), 21, 22, 30, 31, 32, 33, 34, 35, 36, 41. In addition each student shall pass a comprehensive written examination at the end of his senior year. Exceptions to this program may be arranged by the department to encourage and accommodate special individual programs such as interdisciplinary majors.

- 1, 2. *Seminars in English Composition and Literature*. Offered every year.

Open to freshmen and sophomores. Enrollment normally limited to fifteen per section. Class discussion, outside reading, written papers, and conferences. Topics for 1970-1971:

1. *Composition*. Written work on assigned topics, with emphasis upon analysis of problems of exposition. Fall 1970 and spring 1971. THE DEPARTMENT.

2. *Literary Analysis*. Studies of different approaches to literature, with emphasis on the critical analysis of poetry, drama, and fiction. Fall 1970 and spring 1971. MR. COXE.

3. *Survey of English Literature: Beginnings Through Eighteenth Century*. A study of the literature of England with emphasis on Chaucer, Shakespeare, and Swift. Fall 1970. MR. IKELER.

4. *Survey of English Literature: Romantic, Victorian, and Modern*. A study of the literature of England with emphasis on nineteenth-century poetry and the development of the novel: Blake, Keats, Wordsworth, Tennyson, Dickens, Thackeray, Hardy, Joyce, and Eliot. Spring 1971. MR. IKELER.

5. *Twentieth-Century Southern Fiction: A Survey of Themes and Backgrounds*. The course will concentrate upon fiction which grows directly out of the social and historical experience of the American South. Faulkner: *Go Down Moses*, *The Unvanquished*, *Light in August*; Langston Hughes, editor: *The Best Short Stories by Negro Writers*; William Styron: *The Confessions of Nat Turner*; Flannery O'Connor: *The Violent Bear It Away*, *A Good Man Is Hard to Find*. Fall 1970 and spring 1971. MR. BURROUGHS.

6. *The Hero as Outlaw*. This seminar will examine fictional works that discuss the relationship between "law-abiding" members of society and the individual criminal. Such topics

* Composition seminars will not count towards the major.

as the psychology of the criminal, the notion of guilt, the trial as a fictional device, and the criminal as social critic will be discussed and written about in connection with the following required texts: *The Stranger*, Camus; *Crime and Punishment*, Dostoevski; *The Trial*, Kafka; *Billy Budd*, Melville; *The Scarlet Letter*, Hawthorne; *The Secret Agent*, Conrad; *The Power and the Glory*, Greene; *Oedipus Rex*, Sophocles. Fall 1970 and spring 1971. MR. PALUSKA.

7. *English Composition*. Offered every year. Fall 1970. MR. IKELER.

Written work on assigned topics; attention focused upon the disciplines of composition, with emphasis upon methods of exposition. Ordinarily limited to students not planning to take *English 8*.

Prerequisite: Consent of the instructor.

8. *Advanced Composition*. Offered every year. Spring 1971. MR. PALUSKA.

Written work with emphasis on imaginative writing. Ordinarily limited to students who have not taken *English 7*.

Prerequisite: Consent of the instructor.

9. *Literary Composition*. Offered every other year. Fall 1970. MR. COXE.

The writing of poetry and fiction. Primarily for juniors and seniors.

Prerequisite: Consent of the instructor.

10. *Origins and Development of the Language*. Offered every other year. Spring 1972.

A study of conditions, linguistic and historical, through which the language developed into modern English, with close examination of relevant literary texts.

11. *Chaucer*. Offered every other year. Fall 1971.

A study of the *Canterbury Tales*, the *Prologue* and connecting links, *Troilus and Criseyde*, and the minor poems.

12. *Medieval Poetry and Prose*. Offered every other year. Fall 1970. MR. BURROUGHS.

An examination of *Gawain and the Green Knight*, the *Pearl*, *Piers the Plowman*, the Scottish Chaucerians, and selected medieval romances and lyrics.

13. *Shakespeare I*. Offered every year. Fall 1970. MR. BROWN.

An intensive study of Shakespeare's principal comedies, history plays, early tragedies, and poems.

14. *Shakespeare II*. Offered every year. Spring 1971. MR. BROWN.

An intensive study of the principal tragedies and the dramatic romances.

15. *English Literature of the Early Renaissance*. Offered every other year. Fall 1971. MR. REDWINE.

A critical study of the literature of the sixteenth century, with emphasis upon Elizabethan nondramatic poetry.

16. *English Literature of the Later Renaissance*. Offered every other year. Spring 1972. MR. REDWINE.

A critical study of the literature of the seventeenth century exclusive of Milton, with emphasis on the poetry of Donne and Jonson and their followers.

17. *Milton*. Offered every other year. Fall 1970. MR. REDWINE.

A critical study of Milton's chief writings in poetry and prose.

18. *Eighteenth-Century Poetry and Prose*. Offered every other year. Spring 1972. MR. GREASON.

A study of neoclassical values, with special attention to the writings of Swift, Pope, and Johnson.

19. *English Romanticism*. Offered every other year. Fall 1970. MR. HALL.

An analytical study of the origins, growth, and nature of romanticism, with emphasis on Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats, with illustrative parallels in the visual arts, including paintings of Gainsborough, Reynolds, Constable, Blake, and Turner.

20. *Victorian Poetry*. Offered every other year. Spring 1971. MR. COXE.

A critical study of the major Victorian poets.

21. *Twentieth-Century English and American Literature I*. Offered every other year. Fall 1971. MR. HALL.

A critical analysis of the philosophic and technical bases of the modern schools beginning with Joseph Conrad.

22. *Twentieth-Century English and American Literature II*. Offered every other year. Spring 1972.

Various developments in contemporary literature.

30. *Literary Criticism: Definitions and Methods*. Offered every year. Spring 1971. MESSRS. HALL AND REDWINE.

An approach to criticism through the definitions of its governing concepts and terms; analysis of selected critical writings and practice in the application of the principles and instruments of criticism.

31. *The Development of the English Drama*. Offered every other year. Fall 1970.

A study of representative plays of Medieval, Elizabethan (excluding Shakespeare), Jacobean, and Restoration drama, as far as Sheridan.

32. *Modern Drama*. Offered every other year. Spring 1971.

A study of modern dramatic literature, with emphasis on the comparative trends and influences of foreign drama.

33. *The English Novel I*. Offered every other year. Fall 1971.

A critical study of the development of English fiction and the changing patterns of the novel in the eighteenth and nineteenth centuries, through Thackeray.

34. *The English Novel II*. Offered every other year. Spring 1972. Later nineteenth-century fiction.

35. *American Literature I*. Offered every year. Fall 1970. MR. BROWN.

Lectures and readings in American literature from the Puritan Age to the Civil War.

36. *American Literature II*. Offered every year. Spring 1971. MR. BROWN.

Major American writers from 1865 to 1950.

41. *Studies in Literary Genres*. Offered every year.

Lectures, discussions, and extensive readings in a major literary genre: e.g., The Narrative Poem, The Lyric Poem, Fiction, Comedy, Tragedy, or The Essay.

1. *The Literary Epic*. A study of the genre, with particular emphasis upon its status as cultural and historical myth. The course will concentrate upon the tradition that descends from Vergil, through the medieval period, to Spenser, Milton, and Pope. Spring 1971. MR. BURROUGHS.

2. *Salire*. A study of the mode with emphasis upon theory and practice in ancient and modern times. Among writers con-

sidered will be Aristophanes, Horace, and Juvenal (in translation); Chaucer, Shakespeare, Jonson, Dryden, Swift, Pope, Johnson, Byron, and Mark Twain. Spring 1971. MR. REDWINE.

Prerequisite: Consent of the instructor.

[47. *Playwriting.*]

50. *Fundamentals of Theater.* Offered every semester.

A studio class for students interested in fundamentals of acting, directing, set designing, or technical production in the theater.

Prerequisite: Consent of the instructor.

60, 61. *Junior and Senior Major Tutorials.* Offered every semester.
THE DEPARTMENT.

Individual study for one semester (fall or spring) under tutorial supervision in an area (e.g., a period, a movement, a genre) which has not been covered formally through courses. The study shall consist of frequent conferences and the supervised writing of a major essay.

200. *Independent Study.* THE DEPARTMENT.

Geology

ASSOCIATE PROFESSOR HUSSEY, *Chairman*

Students contemplating graduate work in geology should consult with the chairman of the department as soon as possible, and should plan a major program in chemistry, physics, biology, or mathematics, and take *Geology* 1, 2, 3, 4, 5, and 8. *Geology* 1 and 2 should be taken in the freshman year and by the end of the sophomore year the following courses should be completed: *Mathematics* 11, 12; and *Chemistry* 11, 12 or *Physics* 11, 12.

1. *Introduction to Physical Geology.* Offered every year.

Lectures will be devoted to the composition and structure of the earth and the processes which affect the earth's crust. Three hours of laboratory each week will include the recognition and study of common rocks and minerals, the interpretation of topographic and geologic maps, and two half-day trips to examine the geological features of the Brunswick vicinity. In addition a one-day trip is taken to southern York County to examine evidence for glaciation, recent sea level

changes, and sequence of intrusion of four major magma series.

This course is open to all students.

2. *Introduction to Historical Geology*. Offered every year.

Lectures will be devoted to a study of the principles involved in the interpretation of geologic history as deciphered from the rock record and a review of present knowledge of the evolution of the earth and its inhabitants. Three hours of laboratory each week will include the recognition of fossils and their modes of preservation, interpretation of geologic maps, and a summary of the geologic history of the principal tectonic belts of North America. A one-day field trip is taken in the spring to illustrate important aspects of the geologic history of the southern coastal Maine area.

Prerequisite: *Geology* 1.

3. *Crystallography and Mineralogy*. Fall 1971 and fall 1973.

Lectures will be devoted to morphological crystallography, crystal chemistry, and a survey of the common rock-forming and economic minerals. Six hours of laboratory each week will include morphological and X-ray crystallography, and identification of minerals by inspection, chemical, optical, and X-ray diffraction techniques.

Prerequisite: *Chemistry* 11 or *Geology* 1.

4. *Optical Mineralogy and Petrography*. Spring 1972 and spring 1974.

An introduction to the classification, genesis, and description of the common rock types. Six hours of laboratory each week will be devoted to the theory and use of the petrographic microscope as applied to mineral identification and rock description.

Prerequisite: *Geology* 3.

5. *Structural Geology*. Fall 1970 and fall 1972.

An introduction to the primary and secondary structures of rocks, and the interpretation of crustal deformation from these features. Laboratory work will include the interpretation of the structural features of the United States as synthesized from local and regional data.

Prerequisite: *Geology* 1, 2.

8. *Invertebrate Paleontology*. Spring 1971 and spring 1973.

The concepts and paleontological evidence of evolution, the principles of paleontology, and application of fossil data

to geology and biology will be discussed in addition to examining the classification and morphology of the invertebrate groups occurring as fossils. Three lecture hours and three laboratory hours each week.

Prerequisite: *Geology* 1, 2 or *Biology* 1, 2.

200. *Independent Study.*

German

PROFESSORS KOELLN AND RILEY; ASSOCIATE PROFESSOR HODGE,
Chairman; AND TEACHING FELLOWS GORG AND ISLE

NOTE: Students who think that they might like to teach German in high school or college should inform the department early of their interest. They should take *History* 1-2 and college work in another foreign language besides German.

REQUIREMENTS FOR THE MAJOR IN GERMAN: A major consists of *German* 9, 10, 15, 16, and two units from the following: *German* 11, 12, 13, 14. Major students are urged to take *German* 5, 6.

*1-2. *Elementary German.* Offered every year. MR. HODGE.

Five class hours a week, three of which will be devoted to training in grammar, composition, and reading. The two remaining periods, restricted to oral-aural training, will be conducted in the laboratory or in conversation classes by the native teaching fellows, MESSRS. GORG AND ISLE.

A supervised language laboratory is available to all students in the department.

3, 4. *Intermediate German.* Offered every year. MR. RILEY.

Four hours a week, three of which will be devoted to reading, composition, and review of grammar. The one remaining period, restricted to oral-aural training, will be conducted in the laboratory or in conversation classes by the native teaching fellows, MESSRS. GORG AND ISLE.

5, 6. *German Conversation and Composition.* Offered every year. Fall 1970. MR. HODGE. Spring 1971. MR. KOELLN.

A course designed to teach a student to express himself in oral and written German and to understand the spoken language.

Prerequisite: *German* 3, 4.

[7, 8. *Advanced German Composition and Conversation.*]

9, 10. *A Survey of German Literature.* Offered every year. MR. RILEY.

A rapid survey of German literature and civilization from

the earliest times to the middle of the eighteenth century; more detailed study of the period from 1748 to modern times. Reading of lyric poetry, plays, and short stories.

Prerequisite: *German* 3, 4.

11. *German Literature of the Nineteenth and Twentieth Centuries*. Fall 1970. MR. KOELLN.

A study of such representative writers as Hebbel, Storm, Meyer, Keller, Hauptmann, Hofmannsthal, Mann, Kafka, and Brecht. Reading lyric poetry, plays, and short stories. The lectures will be in German.

Prerequisite: *German* 3, 4.

12. *Continuation of Course 11*. Spring 1971. MR. HODGE.

Prerequisite: *German* 3, 4.

13. *Schiller*. Fall 1971. THE DEPARTMENT.

The life, poetry, drama, historical, and philosophical works of Friedrich Schiller. Lectures in German, readings, and reports.

Prerequisite: *German* 3, 4 or consent of the instructor.

14. *The Romantic Movement in Germany*. Spring 1972. THE DEPARTMENT.

Prerequisite: *German* 3, 4 or consent of the instructor.

15. *Goethe*. Fall 1970. MR. KOELLN.

Life and works of Goethe, especially *Faust*.

Prerequisite: *German* 9, 10, or 11, 12, or 13, 14, or consent of the instructor.

16. *Continuation of Course 15*. Spring 1971.

200. *Independent Study*. THE DEPARTMENT.

Government and Legal Studies

PROFESSORS DAGGETT AND DONOVAN; ASSOCIATE PROFESSOR
RENSENBRINK; ASSOCIATE PROFESSOR MORGAN, *Chairman*;
ASSISTANT PROFESSORS EMMERT, LEWIS, AND POTHOLM

REQUIREMENTS FOR THE MAJOR IN GOVERNMENT AND LEGAL STUDIES: A major consists of *Government* 1 and 2, and six further course units selected from those offered by the department. Majors must, however, take at least one course unit from each division of the department's offerings: American government (1, 3, 4, 5, 6, 9, 10, 11, 13, and 14); comparative government (2, 12, 21, 22, and 23);

political theory (16, 17, 19, and 20); and international affairs (7, 8, 15, and 18).

Government

1. *Introduction to Government*. Fall 1970 and spring 1971. MESSRS. DONOVAN, MORGAN, AND EMMERT.

An introduction to the study of government in the United States. The emphasis will be upon the national government and the making of public policy. The course will examine the Constitution, Supreme Court, presidency, Congress, political parties and interest groups, bureaucracy, and national budget-making. Whenever possible an attempt will be made to relate the study of basic institutions to the development of current issues of public policy.

2. *Introduction to Government*. Fall 1970 and spring 1971. MR. POTHOLM.

An introduction to the study of governments other than the United States. Governments selected for study will vary from year to year but will usually include a Western European parliamentary type, a communist one-party type, and the government of a nonwestern, noncommunist developing country. In addition to materials used for each country studied, there will be introduced into the course relevant comparative analyses. Such analyses will be used to tie together or clarify some major questions of the nature and functioning of political institutions and processes uncovered during the first and second semesters.

5. *Urban Governments*. Fall 1970. MR. LEWIS.

A study of the structures of political power in major American metropolitan areas.

Prerequisite: *Government* 1, 2.

- [9. *Public Administration*.]

10. *The American Presidency*. Spring 1971. MR. EMMERT.

An examination, by means of the study of historical materials and recent literature, of the office of the president and of presidential leadership. Emphasis will be placed on the case for and against a vigorous, independent executive and on understanding the problems and nature of statesmanship in our liberal democracy.

Prerequisite: *Government* 1 or consent of the instructor.

11. *Interest Groups and Public Opinion*. Fall 1970. MR. MORGAN.

The basic units of American politics considered in terms of

their internal dynamics and their impact on the governmental process through direct action and through opinion formation.

Prerequisite: *Government 1*.

12. *Advanced Comparative Government*. Spring 1971. MR. RENSENBRINK.

An exploration in depth of political development or modernization, either by a comparison of a western developed country (other than the United States) to a nonwestern, underdeveloped country or by the analysis of the modernization of a contemporary European government. Comparisons and contrasts will be made in the light of analytic materials which probe the nature of development and which identify the problems of political formation and continuity. The aim is to involve the student in significant political issues both in a familiar and in an unfamiliar context, and thereby sharpen his understanding of basic political forces and of options available under varying circumstances.

Prerequisites: *Government 1, 2*; or *Government 11, 12* (as offered in 1967-1968); or *Government 21*; and *Economics 1, 2*.

[13. *Political Parties*.]

14. *The Policy-Making Process*. Spring 1971. MR. DONOVAN.

A study of the policy-making process in American government with special emphasis on executive-legislative relations, the roles of Congress and the presidency, and the basic problem of responsible formulation of public policy in modern American democracy.

Prerequisite: *Government 1, 2*.

Enrollment limited to juniors and seniors.

15. *Problems of World Politics*. Fall 1970. MR. POTHOLM.

The course seeks to identify and explain patterns of interaction among nation-states, including patterns of both conflict and cooperation.

Enrollment limited to thirty junior and senior government majors.

16. *Development of American Political Thought*. Spring 1971. MR. DONOVAN.

A survey of American political thought from the seedtime of the Republic through the present. Particular emphasis will be directed toward an analysis of major American thinkers from Madison to John Dewey. The course will conclude with

an examination of the contemporary dialogue of American liberalism, conservatism, and radicalism.

Prerequisite: *Government* 1, 2.

17. *The Moral Foundations of the Historical, the Scientific, and the Philosophic (Classical) Study of Politics*. Spring 1971. MR. EMMERT.

An examination of various approaches to the study and understanding of politics including particularly the historical, theological, philosophic, and scientific. Emphasis will be placed on clarifying and evaluating the different philosophical foundations of these approaches and on determining which approach is the most appropriate for the study of politics.

Open to all government majors, and to majors in other fields by consent of the instructor.

18. *American Foreign Policy: Its Context, Its Formulation, and the Major Forces Determining Its Direction*. Fall 1970. MR. RENSENBRINK.

The course will be devoted to an exploration of the major theories concerning the sources and conduct of American foreign policy since World War II, with particular emphasis on the sixties. An effort will be made to examine not only diplomatic, constitutional, and administrative factors but also the ramifications of economic and cultural forces. One aim is to provide a framework for thinking about the seventies.

Prerequisite: One course in government, American history, or economics; or the consent of the instructor.

19. *The History of Political Thought in the West from Greek Antiquity to the Present Day*. Offered every fall: Fall 1970. MR. EMMERT.

An analysis, through close textual criticism, of the political writings of selected thinkers of ancient Greece, ancient Rome, medieval Europe, and modern Western civilization. Non-Western thinkers may also be included. Examples of authors to be read are Plato, Aristotle, Lucretius, Augustine, Marsiglio of Padua, Machiavelli, Hobbes, Locke, Rousseau, Hegel, John Stuart Mill, Marx, Kierkegaard, Nietzsche, Veblen, Weber, Lenin, Collingwood, Ortega y Gasset, Pareto, Sorel, Dewey, Sartre, Mao Tse-tung, Gandhi. Not all of these authors will be read in a single year. Authors not listed may be read in any given year.

Prerequisite: *Government* 1, 2, or consent of the instructor.

20. *Continuation of Course 19*. Spring 1971. MR. RENSENBRINK.
Prerequisite: As under *Government 19*.

21. *Political Analysis and the Forces of Change*. Fall 1970. MR. RENSENBRINK.

A study in the perception and conceptualization of political forces through an examination in depth of selected historical contexts. The examination will center on the interaction of sociological, economic, and psychological factors with political formation and development.

Specifically, the course is an introduction to the study of contemporary Black Africa (i.e., Africa south of the Sahara) with particular attention to Nigeria in West Africa and Tanzania in East Africa.

Enrollment limited to twenty-four freshmen.

22. *Political Modernization and Cultural Change: Selected Themes from Countries of the Third World*.

Selected aspects of some of the major forces that are present in the Third World: the role and status of tradition and traditional culture; the role of elites and the quest for identity; parties and political organization; problems of economic development, especially rural development; the nature of the continuing Western economic and political impact; racial and neocolonial exploitation; and Third World nationalisms and ideologies.

The course will be oriented to the African continent, primarily black Africa south of the Sahara.

The course will be taught by undergraduates Bucci, Curtis, Fendler, Fudge, Hastings, MacIntyre, Mills, and Parsons under the supervision of Messrs. Rensenbrink and Lewis.

Prerequisites: *Government 21*, *History 13*, *14*, *34*, or the consent of the instructors.

This course was offered during the spring semester 1970 and is included here for the historical record.

23. *African Politics*. Spring 1971. MR. POTHOLM.

A study of political phenomena in sub-Saharan Africa. Primary emphasis is placed on the dynamics of politics since independence, but geography, ethnicity, and history are also explored in a series of introductory lectures.

Prerequisite: *Government 1*, *2*, *21*, or *22*.

Legal Studies

- 3, 4. *American Constitutional Law*. Offered every year. Fall 1970. MR. DAGGETT. Spring 1971. MR. MORGAN.

A study of constitutional principles in the United States. The case method is used in the presentation of material.

Prerequisite: *Government* 1. Open to juniors and seniors.

6. *Law and Society*. Fall 1970. MR. MORGAN.

Selected nonconstitutional areas of American public law which have become the focus of intense political conflict: to include federal and state statutory efforts in the field of civil rights, zoning and building codes as checks on population movements, and the philosophical underpinnings of the criminal law.

Prerequisite: *Government* 3, 4, or the consent of the instructor.

7. *International Law*. Fall 1970. MR. DAGGETT.

A study of the modern state system, of the role of law in its operation, of the principles and practices which have developed, and of the problems involved in their application.

8. *International Organization*. Spring 1971. MR. DAGGETT.

The development of arbitration and judicial settlement; the League of Nations; the United Nations; and selected agencies such as the International Labor Organization.

Prerequisite: *Government* 7.

200. *Independent Study*. THE DEPARTMENT.

History

PRESIDENT HOWELL; PROFESSORS HELMREICH AND WHITESIDE;
VISITING PROFESSOR HURST; ASSOCIATE PROFESSOR LEVINE, *Chairman*;
ASSISTANT PROFESSORS NYHUS, KARL, DIETRICH, BLAND,
WILLMAN, AND LEWIS

REQUIREMENTS FOR THE MAJOR IN HISTORY: A major consists of eight courses approved by the department. These eight courses need not all be in the Department of History. In consultation with a member of the department, each student develops a field of concentration, and two supplementary fields. Fields may be defined by period (e.g., twentieth-century Europe), by country (e.g., English history), or by type of history (e.g., economic history). Knowl-

edge of these fields will be pursued in course work and independent reading. Normally a student should plan to take a research seminar (numbered in the 30s) in his field of concentration. The department wishes to draw attention to the fact that courses numbered in the 30s and Independent Study are open to qualified students who are not majors in history.

Interdisciplinary Concentrations: Within a history major, a number of students have constructed programs which draw courses from related departments. For example, a number of majors are pursuing programs in American civilization, made up from courses in history, literature, art, religion, etc. Other such programs might include courses in the history, language, and literature of a particular European country, or of a particular period of time.

Work Away from Bowdoin: The department is happy to cooperate with students who wish to do a portion of their work away from Bowdoin, either at another college in the United States or elsewhere, or outside an institutional setting. Arrangements for such work will usually be started during the sophomore year.

Languages: Students contemplating graduate work in history to the doctoral level should be sure to incorporate appropriate language preparation into their undergraduate training. Usually this will mean gaining a reading competence in two foreign languages.

*1-2. *History of Western Civilization from Classical Times to the Present.* Offered every year. (*History 2* will be omitted in the spring semester, 1971; *History 1* may be elected as a one-semester course.) MR. HELMREICH.

A survey of the chief political, economic, religious, intellectual, and cultural developments of European society. The fall semester is devoted to the heritage of classical antiquity, the development of the Christian Church, the Saracenic Empire, the feudal system, the beginning of national states, the Renaissance and Reformation. In the spring semester emphasis is laid on the growth of nationalism together with the evolution of present-day political and social systems, the French Revolution, the Industrial Revolution, imperialism, World War I, and the interwar period.

11. *Crises in European History.* Offered every spring. MESSRS. HOWELL, NYHUS, AND KARL.

An introductory course, primarily for freshmen, which undertakes a study of four periods when the fabric of European society was placed under particular stress. Particular attention will be paid to such topics as the Investiture Controversy, the

Reformation, the French Revolution, the Puritan Revolution, the Scientific Revolution. Classroom activity emphasizes student activity rather than passivity, through seminar-like procedures. Emphasis will be on use of source material; viability of conflicting interpretations; the defining of historical questions; the writing of short research papers.

- [3. *Political, Cultural, and Intellectual History of Europe in the Classical Period.*]

4. *History of Europe in the Middle Ages.* Offered every other year. Fall 1971. MR. NYHUS.

A general survey of medieval history covering political and social institutions as well as intellectual and cultural movements. The course begins with the end of the Roman Empire but emphasizes the Carolingian period and the High Middle Ages.

5. *History of the Reformation and the Age of Louis XIV.* Offered every other year. Fall 1970. MR. KARL.

A brief study of the Reformation serves as an introduction for the political, religious, and intellectual history of Europe from the opening of the sixteenth century to the death of Louis XIV.

6. *History of the Enlightenment and the Revolutionary Era.* Offered every other year. Spring 1971. MR. KARL.

A study of the background, course, and influence on Europe of the French Revolution and the Napoleonic Era.

7. *History of England from its Origins to the Sixteenth Century.* Offered every other year. Fall 1971. MR. WILLMAN.

A survey of the cultural and intellectual, the political and constitutional, and the social and economic development of England.

8. *History of England from the Sixteenth Century to the Eighteenth Century.* Offered every other year. Spring 1972. MR. WILLMAN.
Continuation of History 7.

9. *History of Europe from the Revolutions of 1848 to World War I.* Offered every other year. Fall 1970. MR. HELMREICH.

Political and social history of the states of Europe and of their imperialistic expansion, ending in a detailed study of the origins of World War I.

Prerequisite: *History* 1-2, junior or senior standing, or consent of the instructor.

[10. *Recent European History.*]

12. *Renaissance Europe.* Offered every other year. Fall 1970. MR. NYHUS.

In addition to a close study of the politics and culture of the period, the course considers the historical problem of a renaissance.

13. *The Afro-American Experience.* Fall 1970. MR. LEWIS.

This survey course will begin with the African background of the Afro-American. It will treat his growth and development in Africa prior to European contact. Moreover, the slave trade, slavery as an institution, free Blacks, and selected pre-Civil War topics will constitute the core of the course sequence.

14. *Race Relations in the United States since 1850.* Spring 1971. MR. LEVINE.

A continuation of *History* 13, the course will deal with the Civil War and Reconstruction periods, in addition to demographic, cultural, economic, political, and protest thought to the present.

- *15-16. *History of Russia and East Central Europe.* Offered every other year. Fall and spring 1971-1972. MR. HELMREICH.

A study of the historic origins and development of the peoples of Russia, the Baltic States, Poland, Czechoslovakia, Austria, Hungary, the Balkans, and Turkey, ending with an analysis of Russia's present-day relations with her satellites.

Prerequisite: *History* 1-2, junior or senior standing, or consent of the instructor.

17. *East Asian Civilizations.* Offered every fall. MR. DIETRICH.

A topical study of Chinese, Japanese, and Korean traditional culture, including technology, economic organization, social and political institutions, thought, religion, and life style. The course will show how East Asian civilization experienced profound changes before the modern era.

[18. *East Asian Civilizations.*]

19. *The German Problem: Thirty Years War to the Revolutions of 1848.* Offered every other year. Fall 1971. MR. KARL.

A consideration of some mainstreams in German history, directed toward exploring the historical background to the "German Problem."

20. *Interpretations of American History*. Offered every fall. MR. LEVINE.

A consideration of several subjects in the American past; how historians have tried to deal with them; how historians have disagreed with each other; the relationship between the past and present. Emphasis will be placed on the developing of the student's ability to read historical sources and works of historians both critically and analytically.

- [21. *Interpretations of American History*.]

22. *The United States and its World Relations Since 1898*. Offered every other year. Fall 1970. MR. WHITESIDE.

An attempt to integrate domestic history and changing relationships with the outside world. While the course is not conventional diplomatic history, considerable attention is paid to diplomacy.

23. *History of England from 1800 to the Present*. Offered every other year. Spring 1971. MR. WILLMAN.

A survey of the cultural and intellectual, the political and constitutional, and the social and economic development of England during the modern period. (This course represents a continuation of the sequence including *History 7* and *8*.)

24. *Modern China*. Offered every other year. Spring 1971. MR. DIETRICH.

A study of the political, social, economic, and intellectual changes that transformed China between the last days of the Ch'ing empire and the present-day People's Republic.

25. *The Age of Jefferson and Jackson*. Offered every other year. Spring 1971. MR. BLAND.

A study based on monographs and source materials of the early national period of American history, 1789-1848. Social and intellectual currents as well as political developments will be covered.

26. *The Colonial Experience*. Offered every other year. Fall 1970. MR. BLAND.

The origins of American civilization examined through political and intellectual history. Particular attention will be paid to political theory and practice of the Revolutionary period.

27. *The Crisis of the Union, 1848-1877*. Offered every other year. Fall 1970. MR. LEVINE.

A careful study from monographs and source materials of increasing sectional antagonism, the origins of the Civil War, the war itself, and attempts to solve postwar problems.

28. *The Nation Transformed*. Offered every other year. Spring 1971. MR. WHITESIDE.

The great transformation from a predominantly rural to a predominantly urban nation which took place from about 1865 to World War I. Particular stress on changing ideas.

29. *The Overseas Expansion of Europe*. Offered every fall. Fall 1970. MR. HOWELL.

Analysis of the contact between European nations and the nonwestern world in the early modern period. Emphasis is placed on the interaction of European and nonwestern cultures. Detailed consideration is given to the development of the Latin American and Asian societies encountered by the Europeans. The course will be conducted as a seminar with an emphasis on class discussions and independent research.

Enrollment limited to fifteen.

31. *Problems in Early European History*. Offered every year. MR. NYHUS, MR. BLAND, OR MR. WILLMAN.

This is a close and rigorous investigation of a single period or problem in ancient, medieval, or renaissance history. In addition to critical discussion of sources and monographs, students will develop special aspects of the problem as research projects.

a. Fall 1970: (MR. WILLMAN) Greece in the Classical Period.

b. Spring 1971: (MR. NYHUS) Medieval Islam to 1550.

c. Spring 1971: (MR. BLAND) Roman History: The Age of Cicero, Caesar, and Augustus.

32. *Problems in European History*. Offered every year. MR. HOWELL OR MR. KARL.

A close investigation of a single period or problem in the history of early modern Europe. Following critical discussion of sources both primary and secondary, students will develop specialized aspects as research projects.

Fall 1970: (MR. KARL) The Origins of the French Revolution.

Prerequisite: Consent of the instructor.

33. *Problems in English History*. Offered every fall. MR. WILLMAN.

A close investigation of a single period or problem in the history of England. Following critical discussion of sources both primary and secondary, students will develop specialized aspects as research projects.

Fall 1970: Magna Charta.

Prerequisite: Consent of the instructor.

34. *Problems in United States History*. Offered every year. MR. LEVINE OR MR. BLAND.

A close investigation of a single period or problem in the history of the United States. Following critical discussion of sources both primary and secondary, students will develop specialized aspects as research projects.

Spring 1971: (MR. LEVINE) The Progressive Era.

41. *Crises in United Kingdom Affairs, 1815-1939*. Fall 1970. MR. HURST.

A survey of key developments in the political, social, and economic spheres of the United Kingdom, highlighting the fundamental forces shaping its patterns of historical growth.

42. *International Relations, 1815-1939*. Spring 1971. MR. HURST.

An examination of the fundamental causes of international amities and tensions, bringing in aspects of defense and strategic thinking.

200. *Independent Study*. THE DEPARTMENT.

Mathematics

PROFESSOR CHRISTIE, *Chairman*; PROFESSOR CHITTIM; ASSOCIATE PROFESSORS JOHNSON AND GROBE; ASSISTANT PROFESSORS SILBERGER, BROOKS, SPRINGSTEEL, AND WARD; VISITING ASSISTANT PROFESSOR IRELAND; LECTURERS MR. CURTIS AND MRS. GROBE

REQUIREMENTS FOR THE MAJOR IN MATHEMATICS: A major consists of six courses numbered over 20.

Each major should elect *Mathematics* 21, 13 or 22, 31 or 32, and 30 or 35. Students interested in another field may, with permission, substitute one advanced quantitative course in another department for an advanced mathematics course. Students planning on graduate study in mathematics should elect several of the following courses: 25, 32, 34, 35, 36, 39, 40, 42, 44, 45.

- 1, 2. *The Unity of Mathematics—A Survey Course*. Offered every year. THE DEPARTMENT.

This course is intended as an introduction to mathematics and will be conducted in the spirit of the history of ideas. Its only prerequisite is an interest in arriving at some conception of the nature of this discipline. The course will survey various aspects of mathematics, both contemporary and classical, the unifying theme being the concept of structure. The evolution of structure and its eventual axiomatization will be traced in each of the broad areas of mathematics, areas now roughly designated as algebra, analysis, and topology. Such an approach to the study of mathematics clearly necessitates the introduction of historical materials and the student will be requested to read from a selected bibliography consisting of expository essays.

Open to all students.

5. *Introduction to Computer Programming*. Offered every fall. THE STAFF OF THE COMPUTING CENTER.

An introduction to modern computer systems, time-sharing, and multiprogramming procedures. Program writing in BASIC to solve problems in statistics and numerical analysis. Program writing in machine language and an introduction to FORTRAN and COBOL programming. Techniques of data storage and retrieval.

Open to all students.

11. *Calculus*. Offered every fall. THE DEPARTMENT.

Elements of differential and integral calculus.

Open to students whose secondary school courses, offered for admission to college, have included the customary training in first- and second-degree equations and inequalities, exponents and radicals, geometric progressions, the binomial theorem, the function concept, coordinate systems and graphs, and the properties of and relations among the trigonometric functions.

A special experimental section, 11x, is open by invitation to qualified students. Fundamental concepts and their relation to modern high-speed computing will be emphasized.

12. *Continuation of Course 11*. Offered every semester. THE DEPARTMENT.

Additional calculus and an introduction to infinite series. A special section, 12x, is a sequel to 11x.

Prerequisite: *Mathematics 11* or an equivalent preparation

which includes elementary analytic geometry and a thorough course in calculus.

13. *Differential Equations and Intermediate Calculus*. Offered every semester.

An introduction to differential equations, to functions of two or three variables, and to geometry in three dimensions, using vectors, matrices, and complex numbers.

Prerequisite: *Mathematics 12* or its equivalent.

14. *Elementary Probability and Statistics*. Offered every semester. MR. BROOKS.

Fundamental concepts of probability: experiment, outcome, event, probability, conditional probability, independence. Combinatorics: Cartesian products, permutations and combinations, poker, and Bernoulli trials. Random variables and expectations: the mean, variance, covariance, coefficient of correlation, the laws of averages and large numbers. Descriptive statistics. Introduction to statistical decision theory.

21. *Vector Geometry and Linear Algebra*. Offered every semester. MESSRS. SPRINGSTEEL, WARD, AND IRELAND.

Vectors and matrices applied to topics in linear mathematics.

22. *Calculus of Vector Functions*. Offered every semester.

The differential and integral calculus of more than one variable; applications to geometry.

Prerequisite: *Mathematics 13*, or 21 plus the equivalent of 12.

23. *Algebra*. Fall 1971. MR. CHITTIM.

Real and complex numbers, determinants and matrices, theory of equations, divisors and prime numbers, congruences, quadratic residues, continued fractions.

Prerequisite: Two semesters of college mathematics or consent of the instructor.

25. *Number Theory*. Spring 1971.

A study of number theory along traditional lines. Divisors, prime numbers, and the problem of unique factorization into primes. The law of quadratic reciprocity. Topics from the following: distribution of prime numbers, finite fields, integer solutions to algebraic equations, the rational approximation of real numbers, continued fractions, diophantine geometry, and analytic number theory.

Open to all students. Recommended for prospective sec-

ondary school teachers and for students planning to take courses in abstract algebra.

26. *Numerical Analysis*. Spring 1971. MR. CURTIS.

BASIC and FORTRAN programming, solutions of systems of linear and nonlinear simultaneous equations, polynomial approximation, numerical differentiation and integration, solutions of systems of first-order differential equations. The PDP-10 Time-Sharing System will be used extensively throughout the course.

Prerequisite: *Mathematics* 13 or 21 or 23 or consent of the instructor.

30. *Linear Models*. Fall 1970. MR. BROOKS.

Techniques for solving maximization and minimization problems including linear programming and its applications to resource allocation problems, transportation problems, and the solution of 2-person zero-sum games.

Prerequisite: *Mathematics* 13 or 21 or consent of the instructor.

31. *Applied Analysis*. Offered every fall. MR. GROBE.

The material for this course will be selected from the following list of topics: the Taylor expansion, uniform convergence, Fourier series, the Laplace transform, general methods in ordinary linear differential equations, boundary value problems including the Sturm-Liouville equation, and an introduction to partial differential equations.

Prerequisite: *Mathematics* 13 or 22.

32. *Advanced Calculus*. Offered every spring.

An introduction to the theory of functions of one real variable. Topics include topological properties of the real numbers, sequences and series of both numbers and functions, continuity, uniform continuity, differentiability, the Riemann integral, the Riemann-Stieltjes integral, and properties of some transcendental functions.

Prerequisite: *Mathematics* 39 or the consent of the instructor.

33. *Foundations of Geometry*. Spring 1972.

Euclidean and non-Euclidean geometries will be treated in the framework of Klein's Erlangen program. Topics will be drawn from transformation groups and invariants, coordina-

tization and models, one- and two-dimensional projective geometry and subgeometries such as affine, Euclidean metric, hyperbolic, and elliptic.

Prerequisites: *Mathematics* 13, or 21 and 22, or 21 and consent of the instructor.

34. *Complex Variable*. Offered every spring. MR. GROBE.

Analytic functions of a complex variable, differentiation and integration in the complex plane, theory of residues, conformal mapping.

Prerequisite: *Mathematics* 31 or 32 (may be taken concurrently), or *Mathematics* 13 or 22 and consent of the instructor.

35. *Introduction to Algebraic Structures*. Offered every fall. MR. WARD.

Algebraic properties of number systems. Groups, rings, fields, vector spaces, and their homomorphisms.

Prerequisite: *Mathematics* 21.

36. *Set Theory*. Spring 1971.

The set-theoretical foundations of mathematics, including equivalence and order relations, ordinal and cardinal numbers, and the axiom of choice. Although there are no formal prerequisites, the student is expected to have completed at least two years of mathematics.

37. *Probability*. Fall 1970. MR. SILBERGER.

Foundations and axioms. Sequences of independent trials. Random variables, distribution functions, and expectations. Laws of large numbers. Characteristic functions and central-limit theorems. An introduction to stochastic processes and Markov chains.

Prerequisite: *Mathematics* 12.

38. *Mathematical Statistics*. Spring 1971. MR. BROOKS.

The multivariate normal distribution. Point estimation, properties of estimates, the principle of maximum likelihood. Sampling distributions. Confidence intervals and regions. Tests of hypothesis. Regression, analysis of variance and experimental design. Sequential tests of hypothesis and quality control techniques. Some nonparametric methods.

Prerequisite: *Mathematics* 37 or consent of the instructor.

39. *Introduction to Topology*. Offered every fall. MR. JOHNSON.

Fundamental concepts of general topology: topological

spaces, continuity, separation and countability axioms, connectedness, and compactness. The geometric emphasis will be made more explicit, as time permits, by a consideration of mappings, fixed points, vector fields, networks and polyhedra, curves and surfaces.

Prerequisite: *Mathematics* 13 or 22.

40. *Topics in Topology*. Spring 1972. MR. BROOKS.

One or two directions in topology are pursued with a fair degree of thoroughness, e.g., homology theory, homotopy theory, knot theory, differential topology, additional general topology, or applications of topology.

The topic for spring 1970 was simplicial homology theory and its applications. Some of the applications were the fundamental theorem of algebra (every nonconstant polynomial over the complex numbers has at least one root), the Brouwer fixed point theorem (every continuous mapping of a ball into itself leaves at least one point fixed), the Lefschetz fixed point theorem, and the theorem that every continuous tangential growth of hair on a billiard ball has a cowlick.

Prerequisite: *Mathematics* 39 or consent of the instructor.

42. *Advanced Topics in Algebra*. Offered every spring. MR. WARD.

A selection will be made from the following topics: rings, ring homomorphisms, ideals, polynomial rings, fields of quotients, fields, field extensions, Galois theory. Rings with minimum condition, noetherian and local rings, homology theory. Noncommutative rings. Finite and infinite abelian groups, torsion, the ring of endomorphisms of a module.

Prerequisite: *Mathematics* 35.

44. *Advanced Topics in Geometry*. Fall 1970. MR. IRELAND.

The content of the course will vary, so as to provide the student with advanced geometrical experience from the areas of algebraic geometry, classical differential geometry, or projective and metric geometry.

Prerequisites: *Mathematics* 32, 35; or consent of the instructor.

45. *Advanced Topics in Analysis*. Fall 1971.

Topics include Lebesgue measure and integration and a brief introduction to Banach and Hilbert spaces.

Prerequisite: *Mathematics* 32.

200. *Independent Study*. THE DEPARTMENT.

*1970 Summer Institute
for Secondary School Teachers of Mathematics*

PROFESSOR CHITTIM, *Director*; VISITING ASSISTANT PROFESSOR IRELAND; MR. CURTIS; MR. JAMES H. FAUX (Greece Arcadia High School, Greece, New York); MR. DAVID S. DANIELS (Longmeadow High School, Longmeadow, Massachusetts).

Course I. *Foundations of the Calculus.*

Topology of the real numbers. Continuous functions. Differentiable functions and the mean value theorems. Integrable functions and the fundamental theorem of calculus. The theory of convergent power series and the construction of elementary functions. A historical development of the calculus. Problems of teaching the calculus at the secondary school level.

Course II. *Numerical Analysis.*

Methods used to find approximate numerical solutions of algebraic systems: polynomial roots, polynomial approximations of functions, systems of linear and nonlinear equations, the determination of eigenvalues and eigenvectors of a matrix, numerical integration, ordinary first order differential equations. The development of algorithms, and their application to computation. Applications of computer time-sharing in the secondary school curriculum.

Computing Laboratory.

Instruction in BASIC and FORTRAN programming. Execution of programs on the PDP-10 Time-Sharing System.

*1971 Summer Institute (Proposed)
for Secondary School Teachers of Mathematics*

Course I. *Functions of a Complex Variable.*

The complex numbers as an extension of the real number system; geometric representations of complex numbers; applications to geometric constructions and to the theory of equations; algebraic and transcendental functions; complex series; conformal mapping; theory of residues.

Course II. *Linear Algebra.*

Vector spaces; the concept of basis; linear transformations; inner products and orthogonality; properties of determinants and applications to analytic geometry; algebra of

matrices; transpose and inverse; canonical forms; dualities; linear functions; characteristic vectors.

Experimental Course: *Linear Algebra*.

This course is given by the teacher-participants for a group of above-average high school students, and furnishes motivation for Course II by showing the connection between it and material suitable for presentation at the secondary school level. Each participant assists in the administration, organization, text-writing, or presentation of one course unit. There are twelve such course units.

The Summer Institutes for Secondary School Teachers of Mathematics are part of a program of *sequential* institutes. Participants are secondary school teachers who have done work of superior quality as undergraduate majors in mathematics at accredited institutions and who are ready to undertake graduate studies. Successful completion of work in four Bowdoin Summer Institutes leads to the award of the degree of Master of Arts.

*1970 Summer Advanced Seminar
for Graduate and Postgraduate Students of Mathematics*

ASSOCIATE PROFESSOR JOHNSON AND ASSOCIATE PROFESSOR JONATHAN LUBIN (Brown), *Directors*; ASSOCIATE PROFESSOR JONATHAN ALPERIN (Chicago); DRs. DAVID WALES (Caltech) AND DAVID GOLDSCHMIDT (Yale).

This Advanced Science Seminar provides mathematical training in a research atmosphere by offering both a graduate course and research colloquium.

Course. *Finite Groups*.

This course is devoted to various aspects of finite groups, particularly the relationship of local subgroups to the structure of the group itself. It is based on lectures by Professor Alperin. Supporting sessions, including junior seminars, will be conducted by Drs. Wales and Goldschmidt as well as by numerous postdoctoral members.

Colloquium. *Finite Groups*.

Sequences of lectures on research topics are given by visiting mathematicians R. Brauer (Harvard), W. Feit (Yale), B. Fischer (West Germany), G. Glauberman (Chicago), D. Gorenstein (Rutgers), C. Sims (Rutgers), M. Suzuki (Illinois), and J. Thompson (Chicago).

*1970-1971 Academic Year Institute
for Secondary School Teachers of Mathematics*

ASSOCIATE PROFESSOR GROBE, *Director*

The institute is designed for ten high school mathematics teachers of exceptional ability. The members of the institute pursue the study of mathematics at the graduate level.

The 1970-1971 Academic Year Institute is related to the 1970 Summer Institute in such a way as to provide a program of graduate study running through a twelve-month year. Each graduate student submits for the approval of the department a program of ten courses. Of these, two are the offerings of the 1970 Summer Institute, six are chosen from advanced upper-class courses, and two are graduate seminars especially arranged for the members of the Academic Year Institute. Successful completion of the program with a level of performance appropriate to work at the graduate level leads to the award of the degree of Master of Arts.

Music

PROFESSOR BECKWITH, *Chairman*; ASSOCIATE PROFESSOR
SCHWARTZ; AND ASSISTANT PROFESSOR CALDWELL

REQUIREMENTS FOR THE MAJOR IN MUSIC: The required courses are *Music* 11, 12, 21, 22, and four other semester courses chosen with the approval of the department, except that *Music* 1 does not satisfy this requirement, nor does more than one course from *Music* 2, 3, or 4. Students planning to continue the study of music in graduate school should complete the theory sequence through *Music* 15 and be able to demonstrate facility at the keyboard. Any student planning to major in music should take *Music* 11, 12 during the sophomore year if possible.

The departmental offerings and the requirements for the major in music are so designed that a very broad course of study is possible, well within the liberal arts tradition. It is also possible to follow more specialized programs, with emphasis on theory or history, if further professional study in music is contemplated.

All students majoring in music are expected to participate actively in at least one performing ensemble which rehearses weekly.

1. *Introduction to Music*. Offered every fall. MR. CALDWELL.

This course is devised for students with little or no previous training in music. The ability to read music or play an instru-

ment is not necessary. The essentials of music—sound and time—are studied as they have been used in different periods and in the context of musical forms. Listening materials will be drawn from a variety of sources: early Western music, Western literature from the baroque through romantic eras, twentieth-century music, and music of non-Western cultures.

2. *Contemporary Music*. Offered every spring. MR. SCHWARTZ.

Beginning with the major composers of the turn of the century, such as Debussy, Mahler, and Ives, the course will examine the important trends before 1950 (impressionism, neo-classicism, and the twelve-tone technique) and more recent developments in electronic, serial, indeterminate, and “theater” music. Ability to read music is not required, and much of the course will be devoted to aesthetic and stylistic problems and their relation to more traditional practices.

3. *Studies in Music Literature I*. Offered every fall. MR. SCHWARTZ.

This course is devoted to the understanding of music primarily through listening, although there will be appropriate reading assignments as well. The course material is studied largely from theoretical, structural, and aesthetic orientation. A major portion of the course is devoted to one special topic.

Fall 1970: Electronic Music.

Prerequisite: *Music* 1, 2, or the equivalent.

4. *Studies in Music Literature II*. Offered every spring. MR. CALDWELL.

This course is also devoted to the understanding of music primarily through listening, although there will be appropriate reading assignments as well. The works studied will in most instances be different from those in *Music* 3. The material is presented largely from a historical and structural approach. A major portion of the course is devoted to one special topic.

Spring 1971: To be chosen by the class and instructor.

Prerequisite: *Music* 1, 2, or the equivalent.

- 11, 12. *Elementary Materials of Music*. Offered every year. MR. BECKWITH.

Elementary harmony, counterpoint, ear training, and analysis, primarily of eighteenth- and early nineteenth-century music. Some composition in free style is part of the course, as well as an elementary study of different approaches to the organization of sound and time from about 1600 to the early

twentieth century. There are three class hours plus one laboratory hour weekly.

- 13, 14. *Intermediate Materials of Music*. Offered every year. THE DEPARTMENT.

A continuation of *Music* 11, 12 with the addition of strict composition. The course is ordinarily tutorial, the formal content being determined in part by the needs of the individual student.

Prerequisite: *Music* 11, 12 or the equivalent.

15. *Advanced Materials of Music*. As needed. MR. SCHWARTZ.

A continuation of *Music* 14. The course is tutorial, the formal content being determined in part by the needs of the individual student.

Prerequisite: *Music* 14 or the equivalent.

- *21-22. *History of Music*. Fall and spring 1971-1972.

A concentrated course in the history of music, intended primarily for majors in music, but open to other qualified students. The ability to read music is required.

Prerequisite: Any other music course or consent of the department.

23. *Orchestration*. Fall 1970. MR. SCHWARTZ.

Transcription, arrangement, and free composition for ensembles of stringed, woodwind, and brass instruments, voice(s) and piano, the primary aim being that of effective instrumentation. Intensive study of orchestral and chamber scores, drawn from the music literature, will also be stressed.

Prerequisite: *Music* 11, 12 or the equivalent.

24. *Composition*. Spring 1971. MR. SCHWARTZ.

Free composition for the ensemble combinations cited previously in *Music* 23, with the emphasis upon creative work in the more traditional forms (rondo, variation, sonata-allegro) and a variety of experimental techniques, including electronic music.

Prerequisite: *Music* 11, 12 or the equivalent.

- *51-52. *Applied Music*. Offered every year.

A study of the technique and literature for a chosen instrument. One hour of private instruction per week (fifteen hours a semester) and weekly ensemble classes. The student is expected to spend at least one hour a day working on his chosen instrument, apart from additional research and ensemble

classes. The student will be expected to perform publicly or before the department at the end of each semester.

The course is intended to permit a student to continue study on an instrument in which he has already demonstrated proficiency.

Instruction will be available for most orchestral instruments, piano, organ, and voice. Fee for a course: \$150 for the year 1970-1971.

Prerequisite: Consent of the department.

Instructors: William Eves (piano); Stephen Kecskemethy (violin); Roger Nye (voice). Other instruments as needed.

53, 54. *Continuation of Course 51-52.* Offered every year.

200. *Independent Study.* The Department.

1970 Summer School of Music

PROFESSOR BECKWITH, *Director*; LEWIS KAPLAN, *Music Director* (violin and viola); JONATHAN ABRAMOWITZ (cello); ERIC GRAF (flute); LLOYD GREENBERG (clarinet); JACOB MAXIN (piano); WALTER PONCE (piano).

The curriculum is designed to develop the musicianship, technique, and sense of style of young preprofessional instrumentalists. The program consists of an individually designed schedule of private instruction, chamber ensemble coaching and rehearsals, master classes, and performances at the student recitals.

Instrumental majors devote proportionally more time to their individual studies, while chamber music majors devote proportionally more of their time to ensemble work and do not receive as much private instruction.

Upon request, credit, equivalent to one semester course, is granted.

1971 Summer School of Music (Proposed)

See announcement for 1970 Summer School of Music.

Philosophy

PROFESSOR POLS, *Chairman*; PROFESSOR MCGEE;
AND ASSISTANT PROFESSOR SNIDER

REQUIREMENTS FOR THE MAJOR IN PHILOSOPHY: A major consists of six courses approved by the department. The six must include

11, 12; at least one from the group 21, 22, 23, 24; and 31. Philosophy 1 may not be counted for the major.

1. *Introductory Seminars*. Offered every semester.

This course, open primarily to freshmen, will be given in three seminar sections, each of which will be devoted to a separate topic. Two sections will be offered in the fall and one in the spring. Enrollment will be limited to fifteen in each section. Upperclassmen will be admitted with the consent of the instructor, but freshmen will be given priority for the available places. Topics will be changed from time to time, but they will be restricted in scope, and will make no pretense at being an introduction to the whole field of philosophy. They will in all cases be topics in which contemporary debate is lively and as yet unsettled and to which contributions are being made by more than one field of learning. (Although the course may be taken more than once with a changed topic, in the spring priority will be given to freshmen who have not taken the course in the fall.)

Topic a. *Rationality and Subjectivity*. Fall 1970. MRS. SNIDER.

The seminar will attempt to determine to what degree reason and to what degree subjectivity (feeling, emotion, personal inclination) contribute to our choice between competing beliefs and ways of life, whether scientific, political, moral, or metaphysical. Are there rational criteria that play a role in all eras? Or does our choice rest upon a commitment to standards and goals we accept on some irrational or at least subjective basis? Both traditional and contemporary answers to these questions will be explored.

Topic b. *What is Humanism?* Fall 1970. MR. MCGEE.

A discussion of a view of the nature of human being and of the human situation that is under attack in the current social revolution. Texts will be chosen from the following: Aeschylus, *Prometheus Bound*, *Oresteia*; Sophocles, *Antigone*; Aristophanes, *Lysistrata*; Plato, "Death of Socrates," *Republic*; Aristotle, *Ethics*, *Politics*; Cicero, *On Duties*; Castiglione, *The Courtier*; Swift, *Gulliver's Travels*; Johnson, *Rasselas*; Kolakowski, *Towards a Marxist Humanism*; *Action Program of the Communist Party of Czechoslovakia*, April, 1968.

Topic c. *Mind and Body*. Spring 1971. MR. POLS.

An examination of the contemporary controversy about the nature of mind. Materialistic, behavioristic, and other

'reductionistic' claims that intelligence can be understood in terms of neural physiology and 'intelligent' machines (computers and similar automatons) will be contrasted with claims that consciousness plays an indispensable role in human intelligence and one that can not be exhaustively understood in terms of the machine image. Scientific and philosophical arguments on both sides of the question will be examined, and the relevance of the controversy to the current cultural crisis will be brought out.

3. *Logic and Formal Systems*. Fall 1971 and fall 1973. MRS. SNIDER.
A systematic treatment of the principles of valid inference. After a consideration of the traditional approach, including the syllogism, modern techniques for representing arguments and logical truths are presented. A survey of the structure of deductive systems and their use in science is then made.
4. *Logic and the Limits of Language*. Spring 1971 and spring 1973. MR. MCGEE.

Recognition of principles implicit in ordinary English will be achieved through individual practice in searching for meanings and estimating evidence, in distinguishing demonstration from mere assertion and plausible persuasion, in constructing valid arguments and trying to follow the ways of paradox, in testing differences between expressions of experience and claims to knowledge. This practice goes beyond the performance of exercises set for the course to a kind of field-work in ordinary language, each student analyzing and evaluating examples of discourse he has collected from a variety of outside sources.

6. *Literature as Philosophy*. Offered every spring. Spring 1971. MR. MCGEE. Spring 1972. MR. POLS.

After a presentation of the explicitly philosophical background of the literary works to be studied, the philosophic life-attitudes expressed in them will be examined to determine their adequacy as philosophy and their relevance to conduct. Maximum student participation will be sought, and during much of the course seminar techniques will be employed. The literature to be studied will vary from time to time but will always include one major contemporary work and one major older work. In 1971 some of the following authors will be studied: LeRoi Jones, James Baldwin, Beckett, Camus, Gide, Kafka, Pirandello, James, Mann, Woolf, Dostoevski, Lucretius, Dante, and Goethe.

11. *Major Philosophers of the West: Beginnings to Christianity*. Offered every fall. Fall 1970. MR. POLS. Fall 1971. MR. MCGEE.

A critical examination of the sources and prototypes of Western thought. The course concentrates on Plato and Aristotle, but some attention is given to the pre-Socratic philosophers who influenced them and to the Stoics and Epicureans. Medieval philosophy is more briefly considered, to show the interaction of Christianity and Greek thought.

12. *Major Philosophers of the West: Renaissance to Idealism*. Offered every spring. Spring 1971 and spring 1972. MRS. SNIDER.

Some attention will be given to the philosophic grounds of the scientific revolution and to the intellectual and moral response the new scientific view of the world evoked from the philosophers. Reading in five or six of the following: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

Prerequisite: *Philosophy* 11.

21. *Morality and the Individual*. Fall 1970 and fall 1972. MR. MCGEE.

Various types of answers to the questions "What is right for me to do?", "What ought to be done?", and "What is the good for man?" are traced to their philosophic bases in historical and contemporary sources. The justification these bases provide is critically discussed and some possible meanings of statements used to answer questions in morals are made explicit and compared.

Prerequisite: *Philosophy* 11 and 12.

22. *Morality and Society*. Spring 1971 and spring 1973. MRS. SNIDER.

This course will examine the grounds of some traditional and contemporary ethical theories and emphasize their implications for individual and collective action in our society. It will deal with the problem of individual choice and rights, the nature of law and its role in regulating behavior, and the question of justifying social revolution.

Prerequisite: *Philosophy* 11 and 12.

23. *Theory of Knowledge*. Fall 1971 and fall 1973. MR. MCGEE.

An examination of some of the principal problems in and about the structure and scope of human knowledge: meaning and truth; the relations of a priori to empirical truths; types of inference; problem solving; the limits of science.

Prerequisite: *Philosophy* 11 and 12.

24. *Metaphysics*. Spring 1972 and spring 1974. MR. POLS.

A study of the claim that man can achieve knowledge of ultimate reality and found his own self-knowledge upon it; of the counterclaim that knowledge is restricted by its nature to science and to the commonsense world; and of contemporary attempts, by a radical reexamination of the nature of man's reason, to reassert wider claims for it. The significance of this whole dispute for our conception of human nature will be central to the course. Substantive metaphysical issues with an important bearing on the problem of human nature, such as time, free will, and mechanistic vs. teleological explanation, will accordingly receive especial attention. The reading is largely contemporary.

Prerequisite: *Philosophy* 11 and 12.

31. *Advanced Seminars in Philosophy*. Offered every semester.

A study of some one major philosopher, or of two related philosophers, or of some important philosophical problem or movement. This course can be repeated with credit.

Topic a. Fall 1970. Existentialism. MRS. SNIDER.

Topic b. Spring 1971. Plato and Whitehead. MR. POLS.

Topic c. Fall 1971. William James: Philosopher and Psychologist. MR. POLS.

Topic d. Spring 1972. Wittgenstein. MR. MCGEE.

Prerequisite: Three courses in philosophy, which must include *Philosophy* 11 and 12.

200. *Independent Study*. THE DEPARTMENT.

Physics and Astronomy

PROFESSOR JEPPESEN, *Chairman*; PROFESSOR LACASCE;
ASSOCIATE PROFESSOR TURNER; AND ASSISTANT PROFESSORS
HUGHES AND BOHAN

REQUIREMENTS FOR THE MAJOR IN PHYSICS: A minimum of six semester courses not including *Physics* 11, 12 nor independent study, with at least two of these courses from those courses numbered above 30. Students interested in an interdisciplinary area may, with permission, substitute one advanced quantitative course in another department for an advanced physics course.

A major student who intends to do graduate work in physics or engineering should carry his studies beyond the minimum. In par-

ticular he should take *Physics* 41 and *Mathematics* 34 and probably two semesters of chemistry.

A major student whose interest is in some interdisciplinary area will need to plan his program carefully. A program in biophysics should include courses in organic chemistry as well as in biology; geology and oceanography should include courses in geology and chemistry; astrophysics should include courses in physical chemistry as well as in astronomy. The major student interested in a career in secondary school teaching should seek a broad base in science courses as well as the courses necessary for his teacher's certificate. For a career in industrial management, some courses in economics and government should be included.

Physics

11. *General Physics*. Offered every fall. MR. LACASCE.

An introductory course which aims at an appreciation of the progress toward an understanding of the basic physical nature of the universe. The concepts of space, time, and energy as viewed by Newton and Einstein are examined and related to the motion of particles.

Prerequisite: Concurrent registration or previous credit in *Mathematics* 11.

12. *Fields and Quantum Phenomena*. Offered every spring. MR. LACASCE.

The nature of fields is illustrated by the theory of electricity and magnetism. The study of particles includes the quantization of radiation and the search for the ultimate constituents of matter.

Prerequisite: *Physics* 11 or its equivalent.

Physics 11, 12 are not open to seniors.

22. *Intermediate Mechanics*. Offered every spring. MR. BOHAN.

Development of theoretical mechanics from the elementary level through the introduction of Lagrangian techniques. Applications to periodic motion and to other topics of interest to the class will be discussed.

Prerequisites: *Physics* 11 and *Mathematics* 13 or the consent of the instructor.

23. *Electronic Circuits*. Offered every fall. MR. TURNER.

An introduction to linear network theory, including the analysis of DC and AC circuits, both passive and active, and the principles of feedback. The laboratory work stresses the

fundamentals of electronic instrumentation and measurement. Additional topics selected from the following list are introduced: behavior of electron tube and semiconductor devices, transients in linear circuits, diode circuits and rectifiers, Fourier series, modulation and demodulation, pulse and digital circuits, energy conversion.

Prerequisite: A course in college physics.

24. *Physical Electronics*. Spring 1972. MR. TURNER.

Physical principles of semiconductor devices with applications.

Prerequisite: *Physics* 23 or the consent of the instructor.

25. *Topics in Physics*.

An investigation into a special area of interdisciplinary work.

Fall 1970: *Biophysics*. MR. HUGHES.

An introduction to biophysics, with particular attention to the effects of ionizing radiation on cells and tissues, the application of x-ray diffraction methods to biological problems, and the study of sense organs viewed as transducers of the environment. In addition, some attention will be given to historical aspects of the subject and to the development of devices such as the electron microscope.

Fall 1971: *Physical Oceanography*. MR. LACASCE.

Prerequisite: *Physics* 11, 12.

31. *Atomic Physics*. Fall 1970. MR. BOHAN.

An introduction to relativity and to the quantum theory with applications to atomic and nuclear systems and to elementary particles. A laboratory of selected modern physics experiments.

Prerequisites: *Physics* 11, 12 and *Mathematics* 13, or the consent of the instructor.

32. *Electromagnetic Theory*. Offered every spring. MR. LACASCE.

First the Maxwell relations are presented as a natural extension of basic experimental laws, then emphasis is given to the radiation and transmission of electromagnetic waves.

Prerequisites: *Mathematics* 13 or equivalent and a previous course in college physics.

33. *Optics I*. Offered every fall. MR. JEPPESEN.

A summary of geometrical optics followed by a more detailed study of wave propagation, coherence, interference, and diffraction. Lectures and three hours of laboratory each week.

Prerequisites: *Mathematics* 13 or equivalent and a previous course in college physics.

34. *Optics II*. Offered every spring. MR. JEPPESEN.

The electromagnetic theory of light and the optics of crystals and metals. Quantum theory of radiation applied to atoms and molecules. Light amplification by stimulated emission. Lectures and three hours of laboratory each week.

Prerequisite: *Physics* 33.

35. *Solid State Physics*. Spring 1971. MR. BOHAN.

An introduction to crystal structure and symmetry, magnetic resonance phenomena, and transport properties in solids.

Prerequisites: *Physics* 22 and 31 or the consent of the instructor.

37. *Advanced Mechanics*. Spring 1972. MR. BOHAN.

Extension of *Physics* 22. Further development of Lagrange's techniques, the introduction of Hamilton's equations, and normal coordinates. Applications will be made to many particle vibratory systems and to other selected topics.

Prerequisite: *Physics* 22.

41. *Quantum Mechanics*. Fall 1971. MR. TURNER.

A unified introduction to the quantum theories of Schrodinger, Heisenberg, and Dirac using probability theory. Applications of these theories to explain the physical behavior of simple quantized systems.

Prerequisite: *Mathematics* 31 or the consent of the instructor.

200. *Independent Study*. THE DEPARTMENT.

If the investigations concern the teaching of physics, this course satisfies certain of the requirements for the Maine State Teachers' Certificate.

Astronomy

1. *Planetary Astronomy*. Offered every fall. MR. HUGHES.

This course is a qualitative, nonmathematical discussion of the physics and astronomy of the solar system. Topics to be discussed will include mechanisms of formation of the solar system; the age of the system; the nature and origin of the moon; the properties of the planets and the earth as a planet, with an emphasis on meteorology.

There are no prerequisites.

2. *Stars and Stellar Systems*. Offered every spring. MR. HUGHES.

This course is a qualitative, nonmathematical discussion of the nature of stars and galaxies. The topics to be discussed will include stellar structure and stellar evolution, the properties of galaxies, the expansion of the universe, the nature of quasi-stellar objects, and the principal cosmological theories.

There are no prerequisites.

Psychology

ASSOCIATE PROFESSOR FUCHS, *Chairman*;

ASSISTANT PROFESSORS PERLMUTER AND LIVELY; AND MR. CHAPKO

REQUIREMENTS FOR THE MAJOR IN PSYCHOLOGY: A major comprises *Psychology* 1, 11, 13, 14, and two additional units to be chosen from the following: *Psychology* 3, 4, 21, 22, 23, 24, and 26.

Students considering a major in psychology may elect *Psychology* 1 in their freshman or sophomore year. This course is concerned with the scientific foundations of psychology.

Students who are interested in teaching may find *Psychology* 1, 11, 14, and/or 22 an appropriate combination of courses related to their teaching interest.

1. *General Psychology*. Offered every semester. THE DEPARTMENT.

This course examines basic psychological principles and theories under the general topics of learning, motivation, perception, testing and measurement of intelligence, and the methods of scientific investigation in psychology. There will be lectures and laboratory work each week.

3. *Psychology of Personality*. Fall 1970. MR. CHAPKO.

Descriptive and developmental theories of normal and abnormal personalities will be considered, including the theories of Freud, Lewin, and Rogers. Theories will be examined in relation to empirical evidence.

Prerequisite: *Psychology* 1.

4. *Social Psychology*. Spring 1971. MR. CHAPKO.

A study of social influences upon the development and modification of individual behavior. Topics will include attitude formation, cognitive balance, small group processes, personality development, and prejudice.

Prerequisite: *Psychology* 1.

11. *Measurement and Statistical Method in Psychology*. Offered every fall. MR. CHAPKO.

An introduction to psychological measurement and applications of statistics to research in psychology. Required of majors no later than the junior year.

Prerequisite: *Psychology 1* or consent of the instructor.

13. *Experimental Psychology: Learning*. Offered every fall. MR. PERLMUTER.

Laboratory investigation of learning, with experiments on both human and animal subjects.

Prerequisite: *Psychology 1*.

14. *Experimental Psychology: Perception*. Offered every spring. MR. LIVELY.

Laboratory investigation and analysis of sensory and perceptual processes in human behavior.

Prerequisite: *Psychology 13* or consent of the instructor.

21. *Psychology of Motivation*. Offered every fall. MR. PERLMUTER.

A study of the current experimental and theoretical approaches to motivation. Topics to be discussed include instinctive behavior, primary and secondary drives, analysis of reinforcers, learning theory, and human motivation.

Prerequisite: *Psychology 1* or consent of the instructor.

22. *Theories of Learning*. Spring 1972. MR. LIVELY.

This course is devoted to the study of research data, primarily in human learning, and the fundamental principles of the learning process. The major theories of learning developed by contemporary psychologists will be surveyed.

Prerequisite: *Psychology 1*.

23. *Systematic Psychology*. Offered every fall. MR. FUCHS.

The historical and theoretical backgrounds of modern psychology, with special attention to the chief systems of psychology, including behaviorism, Gestalt theory, and psychoanalysis.

Prerequisite: *Psychology 1* or consent of the instructor.

24. *Contemporary Theory in Psychology*. Spring 1971. MR. CHAPKO.

An analysis of problems faced by theorists in psychology, with a thorough review of current theorizing in one of the following areas: motivation, cognitive processes, perception, personality. The course will be conducted in seminar fashion.

Prerequisites: *Psychology 13* or *14* or consent of the instructor.

26. *Problems in Psychology*. Offered every spring. MR. LIVELY.

This course consists of intensive reading and analysis in

areas of psychology not extensively treated by the core program. Some of these areas are: developmental, physiological, child, social, comparative, test and measurement. Students will meet with the instructor regularly on an individual and group basis.

Prerequisites: *Psychology* 13 or 14 or consent of the instructor.

200. *Independent Study*. THE DEPARTMENT.

Religion

PROFESSOR GEOGHEGAN, *Chairman*; AND ASSISTANT
PROFESSORS LONG AND McDERMOTT

REQUIREMENTS FOR THE MAJOR IN RELIGION: The requirements for the major in religion consist of any six units approved by the department. The introductory courses of the department, *Religion* 11 and 12, normally should be taken not later than the sophomore year.

11. *History of Religions I*. Offered every fall. MR. GEOGHEGAN.

A comparative study and historical survey of the major living religions of Far Eastern origin: Taoism, Confucianism, Hinduism, and Buddhism. Consideration will also be given to some primitive and smaller religions and to a general comparison with Western religion. Lectures, conferences, and readings in basic scriptures and modern interpretations.

Open to all students.

12. *History of Religions II*. Offered every spring. MR. GEOGHEGAN.

A comparative study and historical survey of major religious traditions of Near Eastern origin, Judaism, Christianity (particularly Catholicism and Protestantism), and Islam. Consideration will also be given to a general comparison with religion of non-Western origin. Lectures, conferences, and readings in basic scriptures and modern interpretations of the traditions.

Open to all students.

15. *History of Religions V: Hinduism*. Offered every fall. MR. McDERMOTT.

A study of the roots of Hinduism in Vedic tradition and Dravidian religion. The development of classical and contemporary systems of Hindu religion and thought. The rela-

tionship between Hindu religious values and the wider range of India's cultural life. Consideration will be given to ritual, practice, sects, and Hindu spiritual paths.

Course readings will be taken from a broad range of Hindu primary sources in translation. Selections will range from some Vedic hymns to the classical philosopher-theologians (Śankara, Rāmānuja, etc.) and contemporary Hindu writings.

Open to all students.

16. *History of Religions VI: Buddhism*. Offered every spring. MR. McDERMOTT.

An intensive study of Buddhist origins and development in India; the spread of the religion to East and Southeast Asia; and its interaction with indigenous religions. Consideration will be given to "folk Buddhism," contemporary manifestations of Buddhism, and to such sects as Zen and Tantrism.

Readings will be taken largely from the Canon and other sacred texts of Buddhism in translation.

Open to all students.

17. *History of Religions VII: Religions of China*. Offered every fall. MR. McDERMOTT.

A study of native Chinese traditions: Shamanism, Confucianism, Taoism, "The Hundred Schools," and the cult of ancestors. Neo-Confucianism as a state cult. The Sinification of Buddhism. The contemporary religious situation in the People's Republic. Particular attention will be given to the interaction between the "Great," or philosophical tradition, and folk religion.

Readings will be taken largely from primary sources in translation, ranging from the Chinese classics to the thoughts of Chairman Mao.

Open to all students.

21. *Biblical Literature I: The Hebrew Scriptures*. Offered every fall. MR. LONG.

The work of Old Testament story tellers, poets, prophets, lawgivers, and historians. A critical examination, setting ancient Hebrew literature in its historical and religious context, with reference to the community which laid the foundations for classical Judaism.

Open to all students.

22. *Biblical Literature II: The Literature of the Early Christian Church*. Offered every spring. MR. LONG.

The work of New Testament evangelists, historians, and letter writers. A critical examination, setting early Christian literature in its historical and religious context, with reference to the community which gave shape to first-century Christianity.

Open to all students.

23. *Biblical Literature III: Biblical Theology*. Offered every fall. MR. LONG.

The diverse ways in which Israel and the early Christian church talked about God, man, world, and their interrelationships. A study of primary texts in their cultural surroundings, with readings in representative approaches to biblical theology.

Open to sophomores and upperclassmen, and to freshmen with consent of the instructor.

24. *Biblical Literature IV: Old Testament Prophetic Literature*. Spring 1972. MR. LONG.

A critical and detailed study of important products of the prophetic movement in Israel, seen in the context of other ancient soothsayers, diviners, and magicians. Emphasis upon primary texts in the Old Testament, with appropriate readings from ancient Near Eastern sources.

Open to sophomores and upperclassmen, and to freshmen with the consent of the instructor. *Religion 21*, or its equivalent, is recommended.

25. *Biblical Literature V: The Literature of Judaism*. Spring 1971 and spring 1973. MR. LONG.

A critical study setting Jewish literature of the Greek and Roman periods in its religious, historical, and cultural context. Emphasis upon analysis and discussion of canonical, extracanonical, and sectarian documents, along with early rabbinic law and lore.

Open to sophomores and upperclassmen, and to freshmen with the consent of the instructor. *Religion 21*, or its equivalent, is recommended.

31. *Religious Thought I: Ancient and Medieval Western Religious Thought*. Fall 1970 and fall 1971. MR. GEOGHEGAN.

A study of the philosophy of religion and of theology—especially the central questions of the nature and existence of God, the nature and destiny of man, faith and reason, the problem of evil—by means of a critical examination of the development of Western religious thought from its begin-

nings through the Middle Ages, with special attention to a contemporary restatement of the tradition and to the presuppositions, methods, conclusions, and influence of the thought of Augustine and Aquinas. Lectures, conferences, and readings in basic writings and contemporary interpretations.

Open to juniors and seniors, and to others with the consent of the instructor.

32. *Religious Thought II: Modern and Contemporary Religious Thought*. Spring 1971. MR. GEOGHEGAN.

A study of the philosophy of religion and of theology—especially the central questions of the nature and existence of God, the nature and destiny of man, faith and reason, the problem of evil—by means of a critical examination of the development of Western religious thought from the early modern period to the present, with special attention to representative movements and thinkers, such as Reformation theologians (Luther and Calvin), the criticism of traditional theology (Hume and Kant), the rise of religious existentialism (Kierkegaard), and philosophical theology (Tillich). Lectures, conferences, and readings in basic writings and contemporary interpretations.

Prerequisite: *Religion* 31 or consent of the instructor.

34. *Religious Thought IV: Methodologies in the Study of Religions*. Offered every spring. MR. McDERMOTT.

A study of the various ways of interpreting religion as a phenomenon in human life. An analysis of the historical particularity and the structural universality of religious “patterns of meaning.” Selected works of such authors as Durkheim, Eliade, Freud, Jung, and van der Leeuw will be considered. Illustrative material will be taken from traditional religions of Africa, Southeast Asia, and the American Indians.

Open to sophomores and upperclassmen, and to freshmen with the consent of the instructor.

200. *Independent Study*. THE DEPARTMENT.

Romance Languages

PROFESSOR GEARY, *Chairman*; ASSOCIATE PROFESSOR NUNN;
ASSISTANT PROFESSORS THOMPSON, BROGYANYI, AND CARRIÈRE;
AND TEACHING FELLOW POURCELET

REQUIREMENTS FOR THE MAJOR IN FRENCH: A major consists of French 9, 10, and six semester courses to be chosen from French 11

through 20. With the consent of the department, not more than two of these six courses may be replaced by courses of Independent Study. All majors are urged to elect at least one such course. Prospective majors are expected to have completed *French* 9, 10, the prerequisite for advanced literature courses, by the end of the sophomore year. Majors who plan to attend graduate school or to teach should take *French* 5, 6. Students who intend to qualify for junior year programs in France should complete *French* 3, 4, and 9, 10, by the end of the sophomore year.

French

- *1-2. *Elementary French*. Offered every year. Fall 1970. MR. BROGYANYI. Spring 1971. MR. NUNN.

Three class hours a week are devoted to oral practice, reading, and linguistic analysis. At least two additional hours are to be devoted to intensive practice in the language laboratory.

3. *Intermediate French I*. Offered every fall. MR. NUNN.

Four class hours a week, three of which are devoted to a review of fundamentals. The remaining period, devoted to additional oral practice in small groups, is conducted exclusively in French by the native teaching fellow, MR. POURCELET.

Prerequisite: *French* 2 or appropriate score on a placement test set by the department at the beginning of the fall semester.

4. *Intermediate French II*. Offered every spring. MR. GEARY.

Four class hours a week, conducted largely in French: two are devoted to intensive study of selected literary texts, with additional texts assigned for extensive reading outside of class; the third, to practice in writing; and the fourth, to oral practice in small groups under the supervision of the native teaching fellow, MR. POURCELET.

Prerequisite: *French* 3 or appropriate score on a placement test set by the department at the beginning of the fall semester.

In French 1-2, 3, and 4, there are regular assignments which are to be prepared in the language laboratory.

5. *Third-Year French I*. Offered every fall. MR. BROGYANYI.

This course is intended to develop fluency in the use of spoken and written French and in the reading of narrative and expository prose. Analysis of texts, and brief oral and written reports. Conducted in French.

Prerequisite: *French 4* or appropriate score on a placement test set by the department at the beginning of the fall semester.

6. *Third-Year French II*. Offered every spring. MR. NUNN.

A continuation of *French 5*, this course is intended to increase the range of expression in speech and writing. Conducted in French.

Prerequisite: *French 5* or appropriate score on a placement test set by the department at the beginning of the fall semester.

9. *Introduction to French Literature I*. Offered every fall. MR. GEARY.

This course involves close reading of selected prose passages and poetry, along with extensive reading and discussion of outstanding works from the major genres. Beginning with the *Chanson de Roland* and a *roman courtois* (both in a modern French version), the following works are studied: selected poems of Villon, the *Pléiade*, and *La Fontaine*; plays by Corneille, Racine, and Molière; a *conte* by Voltaire, and Rousseau's *Réveries du promeneur solitaire*.

Prerequisite: *French 4* or appropriate score on a placement test set by the department at the beginning of the fall semester.

10. *Introduction to French Literature II*. Offered every semester. MR. CARRIÈRE.

This course is a continuation of *French 9*. The following works are studied: selected poems of Chénier and other major poets from the romantic period to the present; representative novels of Chateaubriand, Balzac, Flaubert, Maupassant, Mauriac, and Camus; romantic and modern drama, including plays of Musset, Sartre, Ionesco, and Beckett.

Prerequisite: *French 9* or consent of the department.

11. *French Thought and Culture I*. Offered every other year. Fall 1971.

A study of the evolution of French thought from the medieval period through the Enlightenment, with consideration of the relevant social and cultural contexts. Conducted in French.

Prerequisite: *French 9*, 10, or consent of the instructor.

12. *French Thought and Culture II*. Offered every other year. Spring 1972.

A continuation of *French 11*, with emphasis on the romantic and decadent movements, positivism, Bergsonian philosophy, surrealism, and existentialism. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

13. *French Poetry I*. Offered every other year. Fall 1970. MR. NUNN.

Critical study of poetic practice and close analysis of epic, lyric, and didactic poetry from the medieval period through the romantic movement. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

14. *French Poetry II*. Offered every other year. Spring 1971. MR. BROGYANYI.

A continuation of *French 13*, from the middle of the nineteenth century to the present. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

15. *French Drama I*. Offered every other year. Fall 1970. MR. BROGYANYI.

A critical study of dramatic theory and practice from the medieval period to the end of the eighteenth century. Medieval farce and religious drama; development of tragi-comedy, tragedy, and comedy; the *drame bourgeois*. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

16. *French Drama II*. Offered every other year. Spring 1971. MR. CARRIÈRE.

A continuation of *French 15*, from romantic to modern drama. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

17. *The French Novel I*. Offered every other year. Fall 1971.

A study of the development of the genre from the medieval *roman* through the romantic period. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

18. *The French Novel II*. Offered every other year. Spring 1972.

A continuation of *French 17*, from realism to the *nouveau roman*. Conducted in French.

Prerequisite: *French 9, 10*, or consent of the instructor.

19. *Seminars on French Literature and Culture*. Offered every semester.

A close study of a single author, period, theme, or literary movement. There will be introductory lectures, but the main

emphasis will be placed on critical discussion and the preparation of research projects. *The course may be repeated for credit with contents changed.*

The course is intended primarily for freshmen. Others may take it with the consent of the instructor.

Prerequisite: *French* 4 or appropriate score on a placement test set by the department at the beginning of the fall semester.

Fall 1970: The Fifth Republic. MR. CARRIÈRE.

Spring 1971: French-African Literature. MR. GEARY.

20. *Selected Topics in French Literature and Culture.* Offered every semester.

Designed to offer students who have a general knowledge of French literary genres the opportunity to study in greater depth selected authors and literary movements. Conducted in French. *The course may be repeated for credit with contents changed.*

The course is intended primarily for juniors and seniors. Others may take it with the consent of the instructor.

Prerequisite: *French* 9, 10.

Fall 1970: French-Canadian Literature and Its Cultural Background. MR. GEARY.

Spring 1971: Baudelaire's Art Criticism and *L'Art romantique*. MR. NUNN.

Italian

[* 1-2. *Elementary Italian.*]

[3, 4. *Readings in Italian Literature.*]

Spanish

- * 1-2. *Elementary Spanish.* Offered every other year. Fall and spring 1971-1972.

Five class hours a week, three of which are devoted to oral practice, reading, and linguistic analysis. The two remaining periods, devoted to additional oral practice in small groups, are conducted in Spanish by the native teaching fellow.

- 3, 4. *Intermediate Spanish.* Offered every year. MR. THOMPSON.

Four class hours a week: in the fall, three hours a week are devoted to a review of fundamentals; in the spring, there is progressively greater emphasis on the intensive study of selected literary texts, extensive reading outside of class, and practice in writing. The fourth class hour is devoted to oral

practice, in small groups, under the supervision of the native teaching fellow.

Prerequisite: *Spanish* 1-2 or appropriate score on a placement test set by the department at the beginning of the fall semester.

- 5, 6. *Spoken and Written Spanish*. Fall and spring 1971-1972.

This course is designed to develop greater fluency and to increase the range of expression in both speech and writing. Conducted in Spanish.

Prerequisite: *Spanish* 3, 4 or appropriate score on a placement test set by the department at the beginning of the fall semester.

- 9, 10. *Readings in Spanish and Hispanic-American Literature*. Offered every year. MR. THOMPSON.

This course is designed to acquaint the student with some of the works of the leading authors and develop an ability to read Spanish accurately and fluently. Some works are explained and discussed in the classroom, others are assigned for outside reading.

Prerequisite: *Spanish* 3, 4 or appropriate score on a placement test set by the department at the beginning of the fall semester.

11. *Selected Topics in Spanish and Hispanic-American Literature*. Offered every other year. Spring 1971. MR. THOMPSON.

Designed to provide students who have a general knowledge of Spanish literature the opportunity to study in greater depth selected authors, genres, and literary movements. Conducted in Spanish. *The course may be repeated for credit with contents changed.*

Prerequisite: *Spanish* 9, 10, or consent of the instructor.

200. *Independent Study*. THE DEPARTMENT.

Russian

ASSISTANT PROFESSOR RUBIN, *Chairman*

- *1-2. *Elementary Russian*. Offered every year.

Emphasis will be on the acquisition of language skills through imitation and repetition of basic language patterns. The primary concern will thus be the development of facility in speaking and understanding simple Russian.

- 3, 4. *Intermediate Russian*. Offered every year.

A continuation of *Russian* 1-2. Concentration will be on maintaining and improving the student's facility in speaking and understanding normal conversational Russian. Most of this course is conducted in Russian.

Prerequisite: *Russian* 1-2.

- 5, 6. *Advanced Russian*. Offered every year.

This course aims to develop the ability to read Russian fluently by combining selected readings in Russian literature with a systematic analysis of Russian word-formation. Discussion, written reports, and explanation of texts exclusively in Russian.

Prerequisite: *Russian* 3, 4.

- 9, 10. *Special Topics in Russian*. Offered every year.

The aim of this course is to enable the student to utilize his knowledge of Russian as a research tool in the investigation of a particular topic. The choice of topics will depend on the interests of the students. Reports and discussions exclusively in Russian.

Prerequisite: *Russian* 5, 6.

200. *Independent Study*.

Sociology

PROFESSOR TAYLOR; ASSOCIATE PROFESSOR ROSSIDES, *Chairman*;
AND ASSISTANT PROFESSOR MINISTER

REQUIREMENTS FOR THE MAJOR IN SOCIOLOGY: A major consists of *Sociology* 1-2, 9, 11, and two more units selected from among *Sociology* 3, 5, 6, 7, 8, 10, 12, 13, and 14.

- *1-2. *Introduction to Sociology*. Offered every year. THE DEPARTMENT.

A study of human groups and social relationships, ranging from families, cliques, and fraternities to industries, social classes, and entire societies. General principles governing human groups will be emphasized, together with their application to such topics as changes in the family, urbanization, and the impact of bureaucratization and mass communication.

3. *World Population*. Fall 1970 and fall 1971. MR. TAYLOR.

A study of changes in population growth and distribution

as they relate to current problems of national and worldwide importance. Such study will devote attention to historical growth, but primary emphasis will be placed on the contemporary situation. This will entail study of three significant variables—births, deaths, and migrations. Special attention will be given to population growth in the developing countries today.

5. *Social Control*. Spring 1971. MR. TAYLOR.

A study of the control of attitudes and behavior through such means as propaganda and censorship, reward and punishment, education and indoctrination. Special emphasis will be placed on mass communications.

Prerequisite: *Sociology* 1-2.

6. *The Urban Community*. Fall 1970. MR. MINISTER.

A study of the structure and functioning of the urban community in different cultural contexts and at various periods in history. Special emphasis will be given to the position of the urban community within the larger society and the social and cultural changes it undergoes within these larger entities.

Prerequisite: *Sociology* 1-2.

7. *Criminology*. Spring 1971. MR. TAYLOR.

A survey of contemporary thought regarding the causes of crime, the treatment of offenders, and the techniques of crime prevention. Field trips to state institutions will be made.

Prerequisite: *Sociology* 1-2.

8. *Minority Groups*. Fall 1970. MR. TAYLOR.

A descriptive and analytical study of intergroup relations, concentrating on problems of race, discrimination, and prejudice. Although major emphasis is placed on the Negro minority in the United States, other interracial and intercultural contacts will be considered for comparative purposes.

Prerequisite: *Sociology* 1-2, *Sociology* 10, or *Government* 1-2.

9. *Social Theory*. Fall 1970 and fall 1971. MR. ROSSIDES.

A critical consideration of some important theories of the nature of human behavior and society. Though attention will be given to historical developments, the course will concentrate on the great formative thinkers of "contemporary" sociology (late nineteenth century to the present).

Prerequisite: *Sociology* 1-2.

[10. *Introduction to Anthropology*.]

11. *Research Methods in Social Behavior*. Spring 1971 and spring 1972. MR. MINISTER.

A study of the methodological principles and problems in the scientific investigation of human behavior. Topics will include: the relationship of theory and method; experimental, laboratory, and survey designs and techniques; data collection and analysis; and interpretation and presentation of results. A survey of research from various fields in the social sciences will illustrate the various uses and misuses of social research methods. The purpose of the course will be to provide the student with the preparation needed to evaluate and use research results, and to prepare him for independent research activity.

Prerequisite: *Sociology* 1-2.

12. *Organizational Behavior*. Fall 1971. MR. MINISTER.

This course deals with certain basic organizational forms. The objective is the description and analysis of the social conditions under which organizations are effective or ineffective in solving problems. The analysis sought is one suitable for application to groups of all types and sizes.

Prerequisite: *Sociology* 1-2.

13. *Social Stratification*. Spring 1971 and spring 1972. MR. ROSSIDES.

A study of the systems of stratification found in various types of communities and societies with emphasis on the United States. Major topics will include: the classic theories of social stratification (e.g., Marx, Weber, Pareto); important empirical analyses; and current research and theory.

Prerequisite: *Sociology* 1-2.

[14. *Social Psychology*.]

200. *Independent Study*. THE DEPARTMENT.

Speech

MRS. MINISTER, *Acting Chairman*; AND MR. BENNETT

1. *Oral Communication*. Offered every semester. Fall 1970. MRS. MINISTER. Spring 1971. MRS. MINISTER AND MR. BENNETT.

This course is intended to develop effective skills in the fundamentals of public speaking and group discussion. There will be frequent performances, evaluations, and conferences. The theory of rhetoric and communication pertinent to both

mastering and criticizing oral exposition and argumentation will be studied.

5. *Advanced Oral Communication*. Offered every fall. Fall 1970. MR. BENNETT.

This course reviews the fundamentals of group and public speaking before advancing to more complex types of speaking with an emphasis on persuasion and argumentation. There will be frequent performances and evaluations. The theory of rhetoric and communication and the principles of speech criticism will be analyzed and applied.

Prerequisite: *Speech 1* or consent of the instructor.

6. *Discussion and Debate*. Offered every spring. Spring 1971. MR. BENNETT.

This course provides the means to develop skill in argumentation through the study and practice of persuasion, discussion, and debate. Emphasis will be given to acquiring habits of reflective thinking, constructing cases systematically and creatively, adapting discourse to the audience, and expressing arguments in effective language.

Prerequisite: *Speech 1* or consent of the instructor.

7. *Oral Interpretation of Literature*. Offered every semester. MRS. MINISTER.

The study and practice of the art of reading literature for an audience, including choral reading. There will be frequent performances with emphasis on analysis and interpretation of the prose, poetry, and drama of a selected number of authors.

200. *Independent Study*. THE DEPARTMENT.

Interdepartmental Courses

- [1. *The Urban Crisis*.]

2. *Case Studies in Natural Science*. Spring 1971. Members of the science departments.

The course will include a series of case studies in contemporary science and will stress the tactics of scientific investigation as applied to areas of research interest of the faculty members taking part. There will be reading of the approximate level of *Scientific American* and there may be laboratory

exercises or demonstrations depending on the exact topic under consideration.

No prerequisite.

The course will be open to about twenty students with preference given to freshmen.

Senior Seminars

Fall Semester, 1970

1. Science, Technology, and Society. MESSRS. ABRAHAMSON AND MAYO.
2. Fifth Century B.C. Athens: A Century of Greatness? MR. AMBROSE.
3. The Musical Avant-Garde, Old and New. MESSRS. BECKWITH AND SCHWARTZ.
4. The American Revolution. MR. BLAND.
5. Political Institutions and Social Change: Recent American and British Experience. MR. DONOVAN.
6. Memory. MR. FUCHS.
7. The Art of Color. MR. GHIKAS.
8. Strategies for Games. MR. JOHNSON.
9. Friedrich Nietzsche: A Problematic Figure for Our Time. MR. KOELLN.
10. Environmental Decisionmaking: The Citizen's Role in Land-use Planning in Maine. MR. MCKEE.
11. The Artist as Philosopher: William Butler Yeats. MR. POLS.
12. Herman Melville. MR. PALUSKA.
13. The Literary Work of Hermann Hesse, the Steppenwolf. MR. RILEY.
14. Modern Architecture and Urban Planning. MR. STODDARD.
15. Don Quijote de la Mancha. MR. THOMPSON.
16. Elementropy. MR. TURNER.
17. Seminar on Drugs. MR. COWING.

Spring Semester, 1971

18. The Artist as a Social Critic. MR. BEAM.
19. Richard Wagner. MESSRS. BECKWITH AND KOELLN.
20. Jean-Paul Sartre. MR. BROGYANYI.
21. Problems in American Education. MR. COWING.
22. Supreme Court and the First Freedom. MR. DAGGETT.
23. Victorian Thought. MR. IKELER.
24. Set Theory and Logic. MR. SPRINGSTEEL.
25. European Agricultural History. MR. WILLMAN.

Reserve Officers' Training Corps

THE Reserve Officers' Training Corps at Bowdoin offers a voluntary curriculum of military science to eligible students. The curriculum consists of theoretical and practical instruction with particular emphasis on leadership development, which is specifically designed to give the student "on-campus" training and experience in the art of organizing, motivating, and leading others. It includes instruction to develop self-discipline, physical stamina, and bearing—qualities that are an important part of leadership and that contribute to success in any kind of career. Classes are presented by the Military Science Unit as provided for by an approved Core Curriculum Program.

The objective of the curriculum offered is to produce junior officers who by their education, training, and inherent qualities are suitable for continued development as Reserve or Regular officers in the Army of the United States.

The Reserve Officers' Training Corps Unit at Bowdoin is an Army General Military Science Unit. The curriculum includes instruction in subjects common to all branches of the Army, and further provides for college-taught academic subjects to be chosen by the student during all four years. Upon successful completion of the program and graduation from college, a student is eligible for appointment as a second lieutenant in one of the branches of the United States Army. The branch assignment of the student is based on his individual choice, background, aptitude, and the needs of the Army at the time he is commissioned. Selected Advanced-Course students who apply may be offered commissions in the Regular Army.

The Senior Division ROTC Program at Bowdoin is divided essentially into two major phases:

(1) The Basic Course—covering the first two academic years. Enrollment for freshmen and sophomores involves one hour of classroom instruction weekly with a strong emphasis on leadership training. Satisfactory completion of the freshman course is a prerequisite for advancement to the second year of the Basic Course. Previous military training or satisfactory completion of accredited secondary school ROTC is accepted in lieu of first-year work in Military Science. The student must be physically qualified. Basic-Course students are eligible for deferment from military service under the Universal Military Training and Service Act upon their application.

(2) Two-Year ROTC Program—replacing the first two academic years. For students who prefer, attendance at a basic six-week summer training period after the sophomore year is acceptable in place of the Basic Course required of students in the traditional Four-Year Program. This summer camp is in addition to the summer camp required of all Advanced-Course students.

(3) The Advanced Course—covering the third and fourth academic years. Successful completion of the Basic Course (or attendance at the basic summer camp after the sophomore year), application by the student, and selection by the Military Science Unit are prerequisites for enrollment. This course involves two hours of classroom instruction weekly during the junior and senior years. Students receive subsistence of approximately \$50 a month while they are enrolled in the Advanced Course, except for the period they are at ROTC summer camp, when a different scale applies.

Between the third and fourth years, students attend a six weeks' advanced summer camp at an Army installation. During the period at summer camp the students are paid approximately \$220. Including travel pay at six cents a mile to and from summer camp, each student receives a total of approximately \$1,200 during the two years of the advanced course. Advanced-Course students are deferred from military service under the Universal Military Training and Service Act.

Uniforms, textbooks, and necessary supplies are provided at no expense to students enrolled in the Basic and Advanced Courses.

The Army offers a limited number of one-, two-, and three-year full scholarships to outstanding students enrolled in the Four-Year ROTC Program. Criteria are set by the Department of the Army and announced by the Director of the ROTC Program in December of each year. See page 51 for further information regarding ROTC Four-Year Scholarships.

Preparatory training in college followed by active service as a commissioned officer gives the individual as a student, and later as a graduate, maximum leadership and management experience of a type which will prove invaluable to him in his future executive, professional, or business career.

Military Science

LIEUTENANT COLONEL OSGOOD, MAJORS HOOGSTRATEN AND SPENCER

*11-12. *First Year Basic Course*. Offered every year.

An introduction to the defense establishment, the organiza-

tion of the Army and ROTC, and the Armed Forces' mission and responsibilities. Introduction to management of military resources, fundamentals of leadership, and the development of certain characteristics of leadership through progressive training in the exercise of command. This phase of military science continues in steps of increasing responsibility through the entire four-year program.

- *21-22. *Second Year Basic Course*. Offered every year.

The course introduces the student to maps and aerial photographs, examines the fundamentals of military operations and small unit tactics, and continues to develop the techniques of leadership.

Prerequisite: *Military Science* 11-12.

- *31-32. *First Year Advanced Course*. Offered every year.

A study of the factors which affect human behavior, methods of accomplishing motivation, and the application of the principles of leadership; a study of military techniques of instruction; advanced work in small unit tactics and communications; and a study of counterinsurgency operations.

Prerequisite: *Military Science* 21-22 or credit for completion of six weeks of basic summer camp.

ROTC Advanced Summer Camp: Students enrolled in the Advanced Course are required to attend a summer camp of six weeks' duration upon completion of MS 32. Camp training is essentially on the individual and small-unit level, with a student receiving experience in the performance of tactical, technical, and administrative duties in the field. Intensive training will be conducted with emphasis on the development of leadership. Camp is conducted at and supported by a major military installation. Exact location will be announced.

- *41-42. *Second Year Advanced Course*. Offered every year.

A study of command and staff organization, training management, and logistics; the concepts of military justice in the Armed Forces; and a survey of applied leadership and military management.

Prerequisite: *Military Science* 31-32.

The Library

THE strength of a college library derives from its collections of books and other library materials and from the staff to make the library useful to students. Bowdoin's Nathaniel Hawthorne-Henry Wadsworth Longfellow Library is exceptionally strong in its reputation as a college library. Totalling more than 400,000 volumes, its collections have been built up over a period of more than 170 years and include an unusually large proportion of distinguished and valuable volumes. Similarly distinguished has been its roster of librarians of the College, a list that includes John Abbot, Calvin Stowe, Henry Wadsworth Longfellow, and George T. Little. Its present full-time staff includes a dozen professional librarians and about an equal number of library assistants.

The first books that belonged to the library—a set of the Count Marsigli's *Danubius Pannico-Mysicus*, given to the College in 1796 by General Henry Knox (who had been a bookseller in Boston before he achieved fame as George Washington's chief ordnance officer)—are still a part of its collections. In the early decades of the nineteenth century Bowdoin's library, largely because of extensive gifts of books from the Bowdoin family and the Benjamin Vaughan family of Hallowell, Maine, was one of the largest in the nation. It has been maintained as one of the larger college libraries of the country, but its areas of growth are now defined by the curriculum of the College and restrained by the desirability of containing it as a collection to which students can have easy, and almost complete, access on open shelves. In addition to its 400,000 volumes (a count which includes bound periodicals and newspapers), the library has a collection of approximately 60,000 maps, over 2,000 photographs, and more than 300,000 manuscript items. The current annual rate of acquisition is about 14,000 volumes and the annual expenditure per student is more than \$290.

The Hawthorne-Longfellow Library building was opened in the fall of 1965. The library occupies 60,000 square feet of its floor space and will eventually incorporate the 26,000 square feet presently used for the College's administrative offices. It now provides space for well over 400,000 volumes and for 538 readers (for 460 of these by individual study tables, carrels, or lounge chairs). Eventual full occupancy of the building will increase shelf capacity to 560,000 volumes and seating capacity to about 700. The College is also reserving the stack wing of Hubbard Hall, the library building of the College from 1903 to 1965, to shelve expanded book collec-

tions. Space for an additional 200,000 books is available there.

The entrance level of the building contains the portions of the library of most immediate use to its readers: the circulation desk and reserve-book shelves, the card catalog, reference books and bibliographies, current newspapers, current periodicals, periodical indexes, government documents, and two large and handsome reading areas. Study stations are conveniently dispersed on this floor as they are throughout the building.

The lower level of the library houses Bowdoin's extensive collection of bound periodicals, its bound volumes of newspapers, and its collections of microfilm and microcards. This area includes space for the library's photocopying services.

Special features of the second floor are an exhibit area and the President Franklin Pierce reading room, informally furnished and giving a broad view through floor-to-ceiling windows. In this room is a collection of paperbound books for recreational reading and a selection of periodicals received by the library for immediate use only. Near this room are more newspapers and magazines for recreational reading, a suite of listening rooms, and a room for record storage. Also on this floor are two suites of ten faculty studies each and small rooms for student typing or group study. The rest of this floor is shelving surrounded by carrels.

More shelving and carrels occupy the principal portion of the third floor. There are nine additional faculty studies on this floor. The eastern end of the third floor is the special collections suite. This includes, in addition to shelf space for Bowdoin's rare books and manuscripts and space for their use, a map room, a conference room, and a staff and faculty lounge.

The collections of the library are strong (though inevitably of varying strength) in all areas covered by the curriculum of the College, and a constant effort is maintained to see that representative publications in fields outside the current curriculum are added to the library. There is special strength in documentary publications relating to both British and American history, in the books relating to exploration and the Arctic regions, in books by and about Carlyle, in books and pamphlets about Maine, in materials about the Huguenots, in books and pamphlets on World War I and on the history of much of middle Europe in this century, and in the literary history of pre-twentieth-century France.

The reference collection includes most of the English-language encyclopedias and a good representation in original editions of major foreign encyclopedias—from two editions of the monumental eighteenth-century *Encyclopédie* of Diderot to such modern works

as the *Grand Larousse Encyclopédique*, *Der Grosse Brockhaus*, the *Enciclopedia Universal Illustrada Europeo-Americana*, the *Bol'shala Sovetskala Entsiklopedia*, and the *Enciclopedia Italiana de Scienze, Lettere ed Arti*. In it also are the principal national bibliographies and other major bibliographical tools. Dispersed in their proper places throughout the collections are such distinguished sets as the *Studies and Documents* of the American Institute of Musicology in Rome, Armando Cortesão's *Portugaliae Monumenta Cartographia*, the elephant-folio edition of John James Audubon's *Ornithological Biography* (his "Birds of America"), E. S. Curtis's *The North American Indian*, the *Rerum Britannicarum Medii Aevi Scriptores*, Jacques Paul Migne's *Patrologiae* (Latina), the *Scriptores Rerum Germanicum*, Reuben Gold Thwaite's *Early American Travels*, and *The Victoria History of the Counties of England*. Scholarly sets include the publications of the Camden Society, the Early English Text Society, the Egypt Exploration Society, the Geological Society of America, the Hakluyt Society, the Henry Bradshaw Society, the Huguenot Society of London, the Prince Society, the Royal Historical Society, the Royal Society, the Scottish History Society, the Scottish Text Society, and the Société des Anciens Textes Français. Of comparable, or perhaps even greater, distinction is Bowdoin's collection of more than 75,000 bound volumes of periodical publications.

Special collections in the Hawthorne-Longfellow Library comprise extensive collections of books, manuscripts, and other materials by and about both Hawthorne and Longfellow; books and pamphlets collected by Governor James Bowdoin; the private library of James Bowdoin III; an unusually large collection of late eighteenth- and early nineteenth-century books (particularly in the sciences) collected by Maine's distinguished Vaughan family; books, periodicals, and pamphlets contemporaneous to the French Revolution; the books, papers, and memorabilia of the Abbott family; an unusually fine representation of the items published in the District of Maine and in the state during the first decade of its statehood; and the books printed by the three most distinguished presses in Maine's history: the Mosher Press, the Southworth Press, and the Anthoensen Press.

Also in the special collections suite are the printed items relating to the history of the College and the chief collections of manuscript archives of the College. These include much material on Bowdoin alumni and extend far beyond a narrow definition of official college records. Here also is the library's general collection of manuscripts. Outstanding among the manuscripts are the collections of the papers of Generals O. O. Howard and Charles Howard, of Senator

William Pitt Fessenden, and of Professors Parker Cleaveland, Alpheus S. Packard, Henry Johnson, and Stanley Perkins Chase; collections of varying extent of most of Bowdoin's presidents, especially Jesse Appleton, Joshua L. Chamberlain, William DeWitt Hyde, and Kenneth Charles Morton Sills; manuscripts by Kenneth Roberts, Kate Douglas Wiggin, Charles Stephens, Edwin Arlington Robinson, Elijah Kellogg, and such contemporary authors as Vance Bourjaily, John Pullen, and Francis Russell.

The books and manuscripts in Bowdoin's special collections are not treated simply as museum pieces. They are freely open to use by qualified scholars and are extensively used in introducing undergraduates—in their research projects, senior seminars, and other independent work—to the variety of research materials regularly used in the scholarly world and which they can expect to use if they continue into university graduate work.

Special collections include also the Bliss Collection of books on travel, on French and British architecture, and other fine books (miscellaneous in nature but largely relating to the history of art and architecture) which are housed in the extraordinarily handsome Susan Dwight Bliss Room in Hubbard Hall. These books are additionally distinguished by their fine bindings. The books in this room and the room itself (with its Renaissance ceiling which once graced a Neapolitan palazzo) were the gift of Miss Bliss in 1945.

During term time the library is open from 8:30 A.M. to midnight Monday through Saturday, and on Sunday from 12:00 NOON to midnight. When the College is not in session the library is not open in the evenings or on Sundays or holidays. Small departmental collections in art, biology, chemistry, mathematics, music, and physics are housed contiguous to the offices of the departments and are available for use on separate schedules of opening.

The operations of the library and the growth of its collections are supported by the general funds of the College and by gifts from alumni and other friends of the library and of the College. The library is annually the recipient of generous gifts of both books and funds for the immediate purchase of books or other library materials. It is always especially desirous of gifts of books, manuscripts, and family records and correspondence relating to the alumni of the College. The income of more than ninety gifts to the College as endowment is directed to the use of the library.

LIBRARY FUNDS
(As of January 31, 1970)

<i>Name</i>	<i>Donor or source</i>	<i>Amount</i>
Achorn	Edgar O. Achorn 1881	
The annual balance from the Achorn Flag Fund.		
Adams	William C. Adams 1897	\$ 2,000
John Appleton 1822	Frederick H. Appleton 1864	10,053
James Alan Auld 1970	His family and friends	1,102
Samuel H. Ayer 1839	Athenæan Society	1,020
Benoit	A. H. Benoit Co. and the Benoit family	2,275
Alexander F. Boardman	Edith Jenney Boardman	500
Elias Bond	Elias Bond 1837	7,220
George S. Bowdoin	George S. Bowdoin	1,041
Philip H. Brown 1851	John C. Brown	2,040
Harold H. Burton 1909	Former law clerks, secretary, and friends	5,225
Warren B. Catlin	Warren B. Catlin	
A fund of \$10,000 annually.		
Henry L. Chapman 1866	Frederic H. Gerrish	10,006
Henry Philip Chapman 1906	H. Philip Chapman, Jr. 1930	1,500
Class of 1825	Several persons	1,025
Class of 1875	Class of 1875	1,671
Class of 1877	Class of 1877	3,033
Class of 1882	Class of 1882	2,346
Class of 1888	Class of 1888	1,210
Class of 1890	Class of 1890	2,020
Class of 1901	Class of 1901	727
Class of 1904	Class of 1904	6,277
Class of 1912	Class of 1912	24,902
Class of 1914	Class of 1914	6,232
Class of 1916 Dwight Say- ward Memorial Book Fund	Class of 1916	3,575
Class of 1924	Class of 1924	2,668

The Library

165

<i>Name</i>	<i>Donor or source</i>	<i>Amount</i>
Class of 1929	Class of 1929	3,005
Lewis S. Conant	Emma L. Conant	63,412
Else H. Copeland	National Blank Book Co.	500
John L. Cutler	John L. Cutler 1837	1,020
Darlington	Mrs. Sibyl H. Darlington	2,000
Miguel de la Fe	His friends	1,820
Betty Edwards Dober	Her family	1,350
James Drummond 1836	Mrs. Drummond and daughter	3,045
Edward A. Dunlap 1940	Mr. and Mrs. Edward A. Dunlap	350
Henry Crosby Emery 1892	Class of 1899	2,000
Daniel C. Fessenden	Daniel C. Fessenden	7,473
Francis Fessenden 1858	John Hubbard	10,000
John O. Fiske	John O. Fiske 1837	1,020
Melville W. Fuller 1853	Mrs. Hugh Wallace	25,000
General Fund	Several persons	2,473
Arthur Chew Gilligan	Mrs. Mary C. Gilligan	1,219
Ginn	Thomas D. Ginn 1909	2,500
Anne Davis Ginn Memorial Fund	Thomas D. Ginn 1909	144,343
William and Elizabeth Goodman	William Goodman	1,200
Albert T. Gould	Albert T. Gould 1908	1,000
Edna G. Gross	Mrs. Henry D. Minot	1,405
Hakluyt	Robert Waterston	1,100
Roscoe J. Ham	Edward B. Ham 1922	1,307
Robert L. Happ 1953	His friends	100
Louis C. Hatch \$100 annually from his estate.	Louis C. Hatch 1895	
Samuel W. Hatch 1847	Miss Laura A. Hatch	1,000
Charles T. Hawes 1876	Mrs. Hawes	2,500

<i>Name</i>	<i>Donor or source</i>	<i>Amount</i>
Kent Jeffrey and Andrew Harriman Herrick Memo- rial Book Fund	John D. Herrick 1957 and Mrs. Herrick	350
George A. Holbrook	George A. Holbrook 1877	2,000
Roger Howell, Jr. 1958	James M. Fawcett III 1958	500
Thomas Hubbard	His sisters and brother	3,307
Thomas H. Hubbard	Thomas H. Hubbard 1857	123,503
Winfield S. Hutchinson 1867	Mrs. Hutchinson	33,416
Elijah Kellogg 1840	Harvey D. Eaton	1,411
President John F. Kennedy	Several persons	3,100
William W. Lawrence	William W. Lawrence 1898	7,500
Brooks Leavitt	Brooks Leavitt 1899	111,462
Noel C. Little 1917	Delta Kappa Epsilon Frater- nity, alumni, and friends	1,300
Charles H. Livingston	His friends	1,185
Solon B. Lufkin	Solon B. Lufkin	500
Robert H. Lunt 1942	William E. Lunt 1904 and Mrs. Lunt	1,500
William E. Lunt 1904	Mrs. Lunt	510
Frank J. Lynde 1877	George Lynde	1,487
Mabel N. Matthews	Mrs. Della Fenton Matthews	1,218
Samuel A. Melcher 1877	Miss Lucy H. Melcher	15,988
Clara Hawkins Mellen	Her friends	1,290
William C. Merryman 1882	Mrs. Merryman	1,000
Earl Scott Miller	Karmil Merchandising Corp.	500
Gilbert H. Montague	Gilbert H. Montague	5,000
Edward S. Morse	Edward S. Morse	1,000
Alpheus S. Packard 1816	Sale of publications	500
William A. Packard	William A. Packard 1851	5,000
John Patten	John Patten	500
Donald W. Philbrick	Donald W. Philbrick 1917	5,450
Frederick W. Pickard	Frederick W. Pickard 1894	152,500

The Library

167

<i>Name</i>	<i>Donor or source</i>	<i>Amount</i>
Lewis Pierce 1852	Henry Hill Pierce 1896	32,009
Alfred Rehder	His family	3,190
Franklin C. Robinson 1873	Clement F. Robinson 1903	5,000
Robert R. Rudy 1946	His friends and relatives	866
J. B. Sewall	Jotham B. Sewall	208
Joseph Sherman 1826 and Thomas Sherman 1828	Mrs. John C. Dodge and Mary S. S. Dodge	4,709
Jonathan L. Sibley	Jonathan L. Sibley	7,094
Sills	Faculty, alumni, and friends	25,854
Edgar M. Simpson 1894	Mrs. Margaret S. Millar	2,500
Smyth	Henry J. Furber 1861	
The annual balance of the Smyth Mathematical Prize Fund.		
Walter M. Solmitz	His friends	579
Daniel C. Stanwood	Miss Muriel S. Haynes	5,375
Edward Stanwood	Edward Stanwood	1,270
L. Corrin Strong	L. Corrin Strong Trust	
One-half the income of the Trust.		
Charles C. Torrey	Charles C. Torrey 1884	1,000
Transportation Library Fund	Edward H. Tevriz 1926 and Joseph T. Small 1924	4,000
United States Steel Founda- tion	United States Steel Founda- tion	20,000
White Pine	Anonymous	10,231
Thomas W. Williams 1910	His friends and relatives	500
Robert W. Wood	Robert W. Wood 1832	1,000

The Fine Arts

THE MUSEUM OF ART

AN art collection has existed at Bowdoin almost since the inception of the College itself. The earliest acquisition of major importance was a group of 142 old master drawings bequeathed to the College in 1811 by James Bowdoin III. This was the first public collection of its kind in America and contains, among many treasures, a superb landscape by Pieter Brueghel the Elder. James Bowdoin III's collection of old master paintings came to the College two years later, in 1813.

Although various parts of the College's art collection were on view during the first half of the nineteenth century, it was not until 1855 that a special gallery devoted to the collection came into being in the College Chapel. This gallery was made possible by a gift from Theophilus Wheeler Walker, a cousin of President Leonard Woods. It was as a memorial to Walker that his two nieces, Harriet Sarah and Mary Sophia Walker, donated funds in 1891 for the erection of the present museum building, designed by Charles Follen McKim of McKim, Mead & White. Four tympana murals of Athens, Rome, Florence, and Venice by John La Farge, Elihu Vedder, Abbott Thayer, and Kenyon Cox, respectively, decorate the museum's Sculpture Hall.

The museum contains one of the most important collections extant of American colonial and federal portraits, including works by Smibert, Feke, Blackburn, Copley, Stuart, Trumbull, and Sully. Among the five examples by Robert Feke is his greatest work, the full-length likeness of *General Samuel Waldo*, generally regarded as the finest American portrait of the first half of the eighteenth century; the nine Gilbert Stuarts include the so-called "official" portrait of *Thomas Jefferson*, as well as its pendant, *James Madison*. A complete catalogue of this collection, *Colonial and Federal Portraits at Bowdoin College*, was published by the College, with a matching grant from the Ford Foundation, in 1966.

The College's collection of ancient art contains sculpture, pottery, bronzes, gems, coins, and glass of all phases of the ancient world. The most notable benefactor in this area was Edward Perry Warren, the leading collector of classical antiquities of the first quarter of the twentieth century. Five magnificent ninth-century B.C. Assyrian reliefs from the Palace of Ashurnazirpal II, the gift to the College of Henri Byron Haskell, Medical 1855, are installed in the Museum's Sculpture Hall. *Ancient Art in Bowdoin College*, a

descriptive catalogue of these holdings, was published in 1964 by the Harvard University Press.

In recent years the College has been the recipient of a Samuel H. Kress Study Collection of twelve Renaissance paintings; a large collection of Renaissance and baroque medallions and plaquettes presented by Amanda, Marquesa Molinari; a fine group of European and American pictures given by John H. Halford, of the Class of 1907, and Mrs. Halford; a collection of Chinese and Korean ceramics given by Governor William Tudor Gardiner and Mrs. Gardiner; and a collection of nineteen paintings and 168 prints by John Sloan bequeathed by George Otis Hamlin.

In the fall of 1964, the College was the recipient of the major portion of a collection of Winslow Homer memorabilia, which until that time had been in the artist's studio at Prout's Neck, the gift of Doris Homer, the wife of the artist's late nephew Charles Lowell Homer. This material, now known as the Homer Collection of the Bowdoin College Museum of Art, includes the artist's first watercolor; a significant group of letters he wrote over a period of many years to various members of his family; and a considerable quantity of photographs of Homer, his family, and of Prout's Neck.

The museum also contains fine examples of the work of such nineteenth-century and twentieth-century American artists as Winslow Homer, Eastman Johnson, Thomas Eakins, George Inness, Martin Johnson Heade, William Glackens, Marsden Hartley, Andrew Wyeth, and Leonard Baskin.

In addition to exhibitions of the permanent collection, the museum holds numerous exhibitions every year of works of art lent by institutions and private collectors throughout the United States. Among the important exhibitions organized by the museum in recent years have been *The Art of Leonard Baskin*, *Painting in British India*, *The Portrayal of the Negro in American Painting*, *The Salton Collection of Renaissance and Baroque Medals and Plaquettes*, *As Maine Goes* (photographs by John McKee of the despoilation of the Maine Coast), *Winslow Homer at Prout's Neck*, *The Language of the Print*, and *Hands to Work and Hearts to God: The Shaker Tradition in Maine*. From time to time the College lends pictures and objects in the custody of the museum to other institutions in various parts of the country. The Bowdoin College Traveling Print Collection is made available gratis to educational institutions in the State of Maine.

In 1961 the Associates program of the Bowdoin College Museum of Art was formed in order to more effectively share the facilities of the museum with the community beyond the College. Students are encouraged to become members, at a reduced rate, so that they can

take advantage of the Associates' publications and events, which include exhibition catalogues and films.

DRAMA AND STAGECRAFT

Since 1903, when a group of students organized the Bowdoin Dramatic Club, the College has recognized the regular production of plays as a valuable part of the extracurricular program. The club, which changed its name to the Masque and Gown in 1909, has produced playwrights from all periods.

One of the most important activities of the club has been its encouragement of playwriting. For over thirty years the Masque and Gown has sponsored student-written one-act play contests, with cash prizes. Winners have later written full-length plays, fifteen of which have been produced on campus and four professionally in New York.

The Department of English offers courses in dramatic literature, acting, and playwriting. Informal instruction is available in acting and directing under a professional director, and in lighting and stagecraft under a professional technician, in Pickard Theater in Memorial Hall. This generous gift of the late Frederick William Pickard, LL.D., a member of the Class of 1894, includes a modern, 600-seat theater with proscenium stage, equipped with a complete system for flying scenery, an electronic lighting dimmer, and a superb modern sound system. In addition, Memorial Hall contains a fully equipped scene shop and, on the lower floor, a small open-stage theater for experimental work.

Membership in the Masque and Gown results from major work on one or minor work on two of the plays produced each season. An executive committee of undergraduates elected by the members consults with the director of dramatics to determine the program for each year, handle the finances and publicity of the club, and organize the production work. To operate efficiently, the Masque and Gown needs box-office and publicity men, directors, designers, builders, painters, electricians, property men, and costumers as well as actors and playwrights.

PRINTING AND TYPOGRAPHY

To supplement the opportunities offered to students in the fine arts, the College has a printing shop in the Walker Art Building. The equipment consists of an assortment of Caslon types especially imported from England, a smaller quantity of Oxford, Centaur, and Arrighi types, stands, stone, cutters, etc., and an old-style hand

press. The purpose is to introduce interested students to the meaning of printing and typography, and to its allied fields in which some knowledge of printing and typography may be of value: editorial work, publishing, advertising, institutional promotion, and the production of fine printing itself.

The college library already owns many examples of fine printing which include the publications designed and printed by Frederick W. Anthoensen, A.M. (Bowdoin, 1947), of The Anthoensen Press, of Portland; books printed by Thomas Bird Mosher, A.M. (Bowdoin, 1906); and publications of the Grolier Club, of New York. In the field of early printing the library possesses several examples of incunabula as well as a collection of 270 leaves of incunabula, mounted and described by Konrad Haebler. In 1950 the library received from Susan Dwight Bliss a unique collection of volumes bound in full leather, beautifully tooled and inlaid by some of the world's finest binders. Among the binders represented are Meunier, Zaehnsdorf, Lortic, Michel, Chambolle-Duru, Riviere and Son, Taffin, Bradstreet, Ruban, Cuzin, and Gruel.

MUSIC

Bowdoin offers its students an unusual variety of musical opportunities. Many undergraduates participate in organizations such as the Glee Club, the *a cappella* choir which sings at Vesper Services, the Meddiebempsters, the Bachelors, and various chamber music ensembles. Student instrumentalists are encouraged to perform in recitals and in concerts of solo and chamber music sponsored by the Bowdoin Music Club.

The Glee Club has always been of particular interest to Bowdoin students. It presents two concerts on campus with prominent New England women's colleges, and during the Christmas season the Chapel Choir presents a concert in the Walker Art Building. The Glee Club has appeared in New York's Town Hall on four occasions, and sings regularly with the Boston Symphony "Pops."

The Meddiebempsters, Bowdoin's augmented double quartet, have toured American Army camps and hospitals in Europe eight times under government sponsorship. The Bowdoin Bachelors, an octet founded in 1961, have become well known. Both octet groups appear frequently at other colleges, and have been heard on network radio and television. Student instrumental ensembles, appearing in numerous campus concerts, have presented music by composers as diverse as Monteverdi, Gabrieli, Hindemith, and John Cage. These ensembles, including the Wind Quintet and Brass Choir, are under the direction of the Department of Music.

In recent years, independent student groups have organized to present programs of mixed-media avant-garde works, incorporating electronics, film and slides, and utilizing works by such composers as Erik Satie and Cornelius Cardew. These have been sponsored jointly by the department, the Senior Center, and various fraternities.

Visiting artists regularly present concerts on the campus. The Curtis-Zimbalist Concert Series, established in 1964, has included the New York Pro Musica, the First Chamber Dance Quartet, the American Brass Quintet, the New York Chamber Soloists, pianist Gary Graffman, and soprano Bethany Beardslee. The 1970-1971 Series includes the New York Chamber Soloists, harpsichordist Albert Fuller, and the Aeolian Chamber Players.

The Bowdoin College Summer School of Music offers intensive training to talented young instrumentalists from all parts of the country. The Aeolian Chamber Players, resident faculty of the Summer School, also present a series of recitals during July and August. In addition, the Chamber Players have given world premieres of new works, commissioned by Bowdoin, at the annual Contemporary Music Festivals. Several of these works are being published by the College, as part of the work of the Bowdoin College Music Press.

Professional teachers are available to give instruction in voice, piano, and other instruments to those students who wish to continue their study of applied music. The College provides practice rooms without charge in the Harvey Dow Gibson Hall of Music. A record loan system gives students the privilege of borrowing records from the extensive collection of the Department of Music.

Public Affairs Research Center

THE Public Affairs Research Center was established in September 1966, through the merger of the Bureau for Research in Municipal Government (established in 1914) and the Center for Economic Research (established in 1958). A full-time professional staff enables the center to carry on a program of identification, preparation, and administration of research investigations dealing generally with economic conditions, community government, regional development, and public administration. These activities are financed through research contracts with government and business organizations, as well as through the assistance of foundation grants and contributions from business firms and individuals.

In addition to special research reports, the center publishes the *Maine Business Indicators*, which contains widely used economic analyses as well as the monthly Maine Business Index. Monographs dealing with various aspects of government activity in Maine—the Government Research Series—are also available through the center.

Within this general framework PARC exercises a unique role in Maine as a research and information center. In addition to the formal studies, the staff of the center is available to answer specific requests for information about socio-economic conditions in Maine that are of concern to business firms, government officials, or other organizations and individuals.

To maintain liaison with the business community and assure adequate and objective representation in the center's studies of current thinking, advisory committees of Maine business leaders are generally established for each major research project. In addition, an informal advisory group to the center is composed of faculty members of Bowdoin College who, by virtue of their experience and interest, can assist in the development and execution of the research program of the center.

The offices of the Public Affairs Research Center are located on the first floor of Hubbard Hall. Here also is the center's library of books, reports, and periodicals covering its fields of interest. This library, supplemented by the regular collection in the Hawthorne-Longfellow Library, is available for consultation and provides the basis for answering requests for specific information. Inquiries should be directed to the Public Affairs Research Center, Bowdoin College, Brunswick, Maine 04011.

The Research Institute of the Gulf of Maine

BOWDOIN COLLEGE, along with seven other educational institutions in Maine, has become a charter member of the Research Institute of the Gulf of Maine. This is a nonprofit corporation established as a consortium to carry out research and educational projects related to oceanography. The nature of oceanographic research and the limited resources of each institution make it highly desirable and imperative that progress in this important area be on a cooperative basis. It is expected that the corporate vehicle will carry out research projects involving in varying degrees participation of faculty members and students as well as physical facilities of the institutional members. None of the separate institutions lose any of their own autonomy with respect to any of the programs that may be carried out by TRIGOM.

Much of the impetus for this consortium followed from a two-day conference on oceanography hosted by Bowdoin College in the summer of 1967. Apart from representatives of the educational institutions in Maine, the conference attracted oceanographers from government agencies, research institutions, and corporations. Physical space for the consortium has been provided by the University of Maine on the Portland campus for the time being. Staffing of the consortium, including the position of executive director, has been made possible through funds the university has obtained as a result of action taken by the Maine Legislature in 1968 and 1969. Eventually it is expected that the consortium will sustain itself through research contracts and private gifts.

Charter members of TRIGOM, apart from Bowdoin College, are Bates and Colby colleges, the University of Maine, Nason and St. Francis colleges, and the Southern Maine Vocational-Technical Institute.

The Bowdoin Scientific Station

THE College maintains a field station at Kent Island, off Grand Manan, in the Bay of Fundy, New Brunswick, Canada, where qualified students can conduct field work on biological problems. Kent Island, containing about two hundred acres and several buildings, was presented to the College in 1935 by Mr. John Sterling Rockefeller, of New York City. Charles Ellsworth Huntington, Ph.D., Professor of Biology, is the director of the station.

This valuable adjunct to the scientific resources of the College, at the entrance to the Bay of Fundy, is the home of thousands of seabirds and is especially attractive to students of ornithology. The extensive tides in the bay provide excellent conditions for the study of marine biology. A wide diversity of terrestrial environments, ranging from marshland to spruce woods, makes the island itself equally attractive to students of ecology.

No formal courses are offered at the station, but students from Bowdoin and other institutions are encouraged to select problems for investigation at Kent Island during the summer and to conduct field work on their own initiative with the advice and assistance of the Department of Biology. Approved field work at the station is acceptable for credit as independent study. Financial assistance for students doing research at Kent Island is available from the Alfred O. Gross Fund (see page 207) and from a grant from the National Science Foundation for undergraduate science education.

Faculty members and graduate students from other institutions have often used the facilities of the station in their research. They have helped the undergraduate members of the station through informal instruction and as examples of experienced investigators at work.

Lectureships and Institutes

THE regular instruction of the College is supplemented each year by ten or twelve major lectures, in addition to occasional lectures and panel discussions sponsored by the various departments of study and undergraduate campus organizations. A notable adjunct to the intellectual life of the entire college community is the series of institutes which brings to Bowdoin every two years various distinguished authorities in art, literature, music, public affairs, and science.

LECTURESHIPS

ANNIE TALBOT COLE LECTURESHIP: This lectureship was founded in 1906 by Mrs. Calista S. Mayhew, of South Orange, New Jersey, in memory of her niece, Mrs. Samuel Valentine Cole. According to the terms of the gift, this lectureship was established to contribute "to the ennoblement and enrichment of life by standing for the idea that life is a glad opportunity. It shall, therefore, exhibit and endeavor to make attractive the highest ideals of character and conduct, and also, insofar as possible, foster an appreciation of the beautiful as revealed through nature, poetry, music, and the fine arts."

MAYHEW LECTURE FUND: This lectureship was founded in 1923 by Mrs. Calista S. Mayhew. The income from the bequest is used to provide lectures on bird life and its effect on forestry.

JOHN WARREN ACHORN LECTURESHIP: This lectureship was established in 1928 by Mrs. John Warren Achorn, as a memorial to her husband, a member of the Class of 1879. The income is used for lectures on birds and bird life.

TALLMAN LECTURE FUND: This fund was established with a gift of \$100,000 by Frank G. Tallman, A.M. (Bowdoin, 1935), of Wilmington, Delaware, in 1928, as a memorial to the Bowdoin members of his family. The income is "to be expended annually upon a series of lectures to be delivered by men selected by the Faculty either in this country or abroad." In addition to offering a course for undergraduates, the visiting professors on the Tallman Foundation give a series of public lectures on the subject of their special interest.

VISITING PROFESSORS ON THE TALLMAN FOUNDATION: 1960-1971

William Matthew O'Neil, A.B., A.M., *McCaughey Professor of Psychology, University of Sydney. Visiting Professor of the History of Science, Spring 1960.*

Takamichi Ninomiya, B.A., *Professor of English, Kobe University. Whitney-Fulbright Visiting Professor of the Japanese Language and Literature, Fall 1960.*

Ole Myrvoll, DR. OECON., *Professor of Economic Theory, Norwegian School of Economics and Business Administration, Bergen. Visiting Professor of Economics, Spring 1962.*

Rex Warner, *Visiting Professor in Classical History and Literature, 1962-1963.*

Alfred Maurice Taylor, M.A., PH.D., *Professor of Physics, University of Southampton. Visiting Professor of Physics, 1964-1965.*

Mahadev Dutta, B.Sc., M.Sc., D.PHIL. (Sc.), *Professor of Mathematics, North Bengal University. Visiting Professor of Mathematics, 1966-1967.*

Howard Nemerov, A.B., L.H.D., *Professor of English, Brandeis University. Visiting Professor of English, Spring 1969.*

Michael Charles Hurst, M.A., *Fellow and Tutor in Modern History and Politics, St. John's College, Oxford. Visiting Professor of History, 1970-1971.*

Ellis Ridgeway Lippincott, A.B., M.A., Ph.D., *Professor of Chemistry, University of Maryland. Visiting Professor of Chemistry, Fall 1970.*

CHEMISTRY LECTURE FUND: By vote of the Boards in 1939 the balance of \$1,280 from a fund given for Department of Chemistry Lectures is used for special lectures in chemistry.

THE STUDENT COUNCIL LECTURESHIP: This lectureship, an annual gift to the College from the Student Council, was established in 1958 to provide a lecture on a topic of interest to students.

EDITH LANSING KOON SILLS LECTURE FUND: This fund, at present amounting to \$5,025, was established in 1961 by the Society of Bowdoin Women to honor Mrs. Kenneth C. M. Sills, the wife of a former president of Bowdoin College. The fund is to be used to support lectures at the College.

CHARLES WESTON PICKARD LECTURE FUND: Founded in 1961 by John Coleman Pickard, of the Class of 1922, in memory of his

grandfather, a member of the Class of 1857. Starting with a gift of \$15,000, the interest is to be added to the principal until it reaches \$25,000, except that beginning with the academic year 1963-1964, and every four years thereafter, the income for that particular year shall be used to provide a lecture in the field of journalism in its broadest sense. "By journalism is meant lines of communication with the public, whether through newspapers, radio, television, or other recognized media."

CHARLES R. BENNETT MEMORIAL FUND: A fund of \$1,000 given in 1962 by Mrs. Mary D. Bennett in memory of her husband, Charles R. Bennett, of the Class of 1907. The income is made available to the Department of Mathematics preferably for the purpose of meeting the expenses of a visiting mathematics lecturer.

NATIONAL SCIENCE FOUNDATION INSTITUTES

SUMMER INSTITUTES

Three grants totaling \$134,832 were received from the National Science Foundation for conducting institutes on the Bowdoin campus in the summer of 1970. Institutes for secondary school teachers were held in chemistry, mathematics, and marine biology. These three institutes ran concurrently from June 29 to August 7. Each institute offered credit at a graduate level of two semester courses or eight semester hours. Under the terms of the grant each participant received a stipend of \$75 a week with additional allowance for dependents and travel.

The Chemistry Institute, directed by John E. Sheats, of the Department of Chemistry, was designed for thirty-six high school teachers who taught or were preparing to teach advanced placement chemistry courses.

The Marine Biology Institute, under the direction of Alton H. Gustafson, professor of biology, was presented to thirty-six science teachers selected because of their interest in marine biology and their ability to foster this interest in their students. Emphasis in this institute was placed on the ecological aspects of the marine environment and the use of living organisms. A part of the program is carried on at the Bowdoin College Marine Laboratory.

The Mathematics Institute was under the direction of Professor Richard L. Chittim of the Department of Mathematics. It provided sixty teachers a program of two courses: one in foundations of the calculus and one in numerical analysis. This institute was the twelfth of a series of Summer Institutes for Secondary School Teachers of Mathematics planned to give credit toward a master's

degree. Again this year participants selected were teachers who would exert leadership in the teaching of mathematics by creating modern courses or writing textbooks.

American teachers who attended these institutes came from every section of the United States. Bowdoin College provided both dining and housing accommodations. Approximately one-half of the teachers were accompanied by their families. Throughout the period of the institutes the facilities of the College including the library, the museum, and the Moulton Union were made available to these participants. The coordinator of the 1970 institutes was Harry K. Warren.

MATHEMATICS SEMINAR

In addition to the three institutes above, there was also the sixth of a sequence of Advanced Science Seminars in Algebra for graduate and postdoctoral students of mathematics. The seminar, financed by a grant of \$90,960 from the National Science Foundation, was under the direction of R. Wells Johnson, associate professor of mathematics, and Jonathan D. Lubin, associate professor of mathematics at Brown University. The 1970 seminar, devoted to finite groups, ran from June 23 to August 13. More than sixty graduate students joined with more than forty senior and postdoctoral members for intensive study and research. Numerous stipends and allowances for travel and subsistence were available to members of the seminar.

SUMMER SCHOOL OF MUSIC

The Summer School of Music, which is coeducational, was founded by Bowdoin in 1965 to give serious music students and advanced young instrumentalists an opportunity to develop as performers and musicians through a concentrated program of instrumental and chamber music lessons.

During the summer of 1970 enrollment was limited to twenty-five students. Instruction was offered in violin, viola, cello, flute, clarinet, and piano, and students were given the opportunity to perform in public at weekly recitals. Upon successfully completing the six-week course, students received one Bowdoin semester course academic credit, the equivalent of four hours, toward the Bachelor of Arts degree. With a grant from the Maine State Commission on the Arts and the Humanities the Aeolian Chamber Players also presented a series of weekly concerts.

Student Life and Activities

BOWDOIN provides for its students a campus life which combines traditional features of the liberal arts college with modern facilities and programs which enrich the experience of undergraduate life. The curriculum offers formal instruction in those subjects appropriate to the development of educated and enlightened citizens. Within this framework students are encouraged, and are permitted sufficient flexibility, to develop their talents and capacities for leadership to the utmost. The physical plant and equipment of the College has been considerably improved in recent years, and visitors are frequently impressed by the quality of these physical facilities, given the modest size of the student body. Along with the library, laboratories, art museum, concert and lecture halls, social center, infirmary, and athletic facilities, continuing attention is given to the less tangible—but more important—intellectual resources of the College. Art shows, lectures, concerts, motion pictures, and legitimate dramatic productions are all planned to provide stimulating experiences which will enhance the student's everyday work within the formal curriculum.

THE HONOR SYSTEM: A student initiated proposal, the Bowdoin Honor System was devised with the uniqueness of Bowdoin foremost in mind. As voted by the Faculty and students, it places complete responsibility upon the individual student for integrity in all of his academic work, including the use of the College library. During registration, each student signs a pledge signifying that he understands and agrees to abide by the Bowdoin College Honor System. In so doing, he is pledging himself neither to give nor to receive unacknowledged aid in any academic undertaking. Further, he is pledging himself, in the event that he witnesses a violation of the Honor System, to "take such action as he believes is consistent with his own sense of honor." Responsibility for instructing students about their obligations under the Honor System resides with the Student Judiciary Board, which also recommends any action in the event of a reported violation. The constitution of the Honor System and other explanatory information are published in a special booklet distributed to all entering students.

THE SOCIAL CODE: A Bowdoin College Social Code developed by the cooperative efforts of students and faculty members governs undergraduate behavior on the campus. Each student is required

to subscribe to the Social Code at registration just as he accepts the Honor Code.

Primary responsibility is placed upon each student for the conduct of his own life. However, the college environment inevitably demands from every student social responsibility. The introduction to the code states: "A Social Code, as opposed to a set of rules, places greater responsibility on its participants than might be at first apparent. The freedom conferred by a Social Code is a positive value only so long as one person's freedom or privacy does not interfere with another's."

The responsibility to create a harmonious community among students with different backgrounds and conflicting private views of morality is given, in the first place, to the students. When conflicts arise between students, the code suggests that they be settled on the local level where they originate. Persistent and serious violations of this Social Code may be brought to the attention of the dean of students and eventually to the Student Judiciary Board for action.

LIVING AND DINING ACCOMMODATIONS: The College provides living and dining accommodations for its students. Entering freshmen live in the several dormitories. Those electing to join fraternities will, after the first few days, normally take their meals at the fraternity house; others dine at the Moulton Union. All seniors with but a few exceptions, live and dine at the Senior Center. The fraternity chapter houses furnish dining accommodations to their members with the exception of the seniors and living accommodations for a large proportion of the sophomore and junior classes (the final arrangements for living quarters being contingent upon the size of enrollment and other factors). Both fraternity and dormitory quarters help to promote the valuable friendships and give-and-take of opinion perennially associated with campus life.

THE MOULTON UNION: The Union is the community center of the College, for all members of the college family—students, faculty, administration, alumni, and guests (and their families). It is not merely a building; it is also an organization and a program. Together they represent a well-considered plan for the community life of the College.

The main lounge, with its pleasant fireplace, is arranged for informal use as well as college gatherings: lectures, smokers, recitals, receptions, and banquets. A conference lounge in the opposite wing and two smaller lounges add flexibility to the main floor area.

Also on this floor are the scheduling and information desk and the campus telephone switchboard.

A large, self-service bookstore, which features a large selection of paperbacks, is located in the southeast corner on the main floor and supplies textbooks and sundries to members of the College. Profits are used for general student social purposes under the direction of the Student Union Committee.

Extracurricular activities such as the Student Union Committee, the *Orient*, the *Bugle*, the Debating Council, the Outing Club, Camera Club, and WBOR have offices in the Union.

On the lower floor, food service is provided in a variety of dining rooms with distinctive decor, where members and friends of the College may dine pleasantly for regular meals or between-meal snacks. One of the dining rooms serves as a banquet room for groups of less than one hundred. Also on this floor are game and television rooms.

The facilities of the Union resemble those of a club in which there are daily opportunities for new students to meet and form friendships with other students and faculty members. The donor's wish to provide a place where the fires of friendship may be kindled and kept burning has been amply realized.

The formulation of policies and the planning of the many-sided program of Union activities are the responsibility of the Union director assisted by the Student Union Committee, consisting of a representative from each fraternity and from the Independents. By sponsoring concerts, dances, lectures, art exhibitions, motion pictures, tournaments, and other entertainments, the committee contributes to the social life of the entire college community.

STUDENT UNION COMMITTEE OFFICERS

Fall 1970

Daniel Joseph Gilmore III, *President*

David Bobbitt Noel, Jr., *Vice President*

William Taylor Hale, *Secretary-Treasurer*

FRATERNITIES: Greek-letter fraternities first appeared on the Bowdoin campus in 1841. A century ago their functions were purely literary and social, but with the passing years they have become more and more an integral part of college life. In the early years, the meeting places of the fraternities were known only to their members. Later the members of the various chapters lived together in several of "the ends" of the college dormitories. A new era began in 1900 when two of the Greek-letter societies moved into houses of their own and took over the provision of living and dining facili-

ties. Ordinarily, the sophomore and junior class members live "at the house," while all of the members, with the exception of the seniors, dine there.

Membership in a fraternity provides much more than an attractive eating club, agreeable companionship, occasional house parties, and interfraternity athletic competition. To many graduates, such membership has meant a valuable training in the care of material property and in the maintenance of good relations with the town and with other groups, and cooperation with the administration and the faculty advisers in promoting worthy social and educational goals.

INDEPENDENTS: The Independent group at Bowdoin has grown rapidly during the past several years. Members of this group usually live in the dormitories and dine at the Moulton Union. The group has its own faculty adviser and holds out to its members the possibility of friendly association with fellow students without the more formal ties that go with fraternity organization.

ASPAU and LASPAU SCHOLARS: Several students are in residence at Bowdoin under the African Scholarship Program of American Universities and the Latin American Scholarship Program of American Universities.

THE STUDENT COUNCIL: The control of student life at Bowdoin is entrusted in the fullest possible measure to the students themselves. Undergraduate self-government is vested in the Student Council, which makes recommendations about student affairs to the student body, and to the Faculty. The Council is composed of representatives from each fraternity and organized social group.

STUDENT COUNCIL

Fall 1970

Geoffrey Bruce Ovenden, *President*

Robert Gordon Stewart, *Vice President*

Owen Wesley Larrabee, *Secretary-Treasurer*

Fraternity Representatives

John Patrick Garrett

Allen A. Auerr, Jr.

Jeffrey Allen Taylor

Mark Frank Strauss

James Jacob Newman

David Bobbitt Noel, Jr.

John Pipinias

Alpha Delta Phi

Alpha Kappa Sigma

Alpha Rho Upsilon

Beta Theta Pi

Chi Psi

Delta Kappa Epsilon

Delta Sigma

Whitney Sieben Hibbard
 George David Bartell
 Niland Burdell Mortimer, Jr.
 Harry George Simmeth, Jr.

Psi Upsilon
 Sigma Nu
 Theta Delta Chi
 Zeta Psi

Independent Representative

Robert Henry Lochte

Class of 1971, Representatives at Large

William Sumner Branting
 Milton Donald Seekins
 Roger Harris Shelling

Class of 1972, Representatives at Large

Michael Wesley Bushey
 Thomas Joseph Cassidy
 Craig George Cogger
 Richard Gardner Kimball
 Mark Henry Lewis

Class of 1973, Representatives at Large

Thomas Joseph Costin
 Mitchell Allan Glazier
 Gregory Leary
 John Medeiros
 William Wallace Sexton

THE STUDENT JUDICIARY BOARD: The Student Judiciary Board is responsible for introducing new students to the Honor System and Social Code. It also sits in judgment on violations of the Honor System and on breaches of the Social Code. Its decisions take the form of recommendations to the dean of students. The board comprises three seniors and two juniors, all elected by the Student Council.

STUDENT JUDICIARY BOARD

Fall 1970

Thomas Joseph Cassidy
 Robert Cecil Johnson, Jr.
 Richard Gardner Kimball
 James Jeffrey Maloney, *Acting Chairman*
 Peter Harding Mulcahy

THE STUDENT CURRICULUM COMMITTEE: The Student Curriculum Committee is interested in faculty-student relationships. Among its contributions to the College is the arrangement of lec-

tures of interest to the college community, delivered principally by members of the Faculty. The five-member committee is elected in the fall; two are members of the Student Council and three, members-at-large, are from the student body.

THE STUDENT COMMITTEE FOR THE SENIOR CENTER: The elected officers of the Senior Class meet frequently with the director of the Senior Center to assist in program planning. This committee may be augmented by additional representatives of the class, as decided by the seniors at a meeting in the early part of the senior year.

STUDENT COMMITTEE FOR THE SENIOR CENTER

Fall 1970

John Francis McClellan (*Class President*)

Richard Nelson Van Santvoord (*Class Vice President*)

Owen Wesley Larrabee (*Class Secretary-Treasurer*)

THE BOARD OF PROCTORS: The maintenance of order in the dormitories and the responsibility for their proper care are delegated to a Board of Proctors nominated by the Student Council and appointed by the dean of students with the approval of the Faculty.

BOARD OF PROCTORS

Fall 1970

Robert Lawrence Bassett

Roy James Bouchard

Thomas Joseph Cassidy

Vincent Anthony DiCara

Stephen Daniel Fendler

Robert James Foley

Mark Henry Lewis

William David Loeffler

Richard Dana Sadoski

Stephen Robert Theroux

Arnold Rodney Tompkins

Peter Budlong Wilbur

THE ORIENT: *The Bowdoin Orient*, the college newspaper, is now in its one-hundredth year of continuous publication. Opportunities for freshmen as "cub" reporters, and for newcomers at the news desk, continue as in the past, and advancement on the staff is rapid for those with a flair for journalism. Students interested in the business management of the newspaper will also find opportunities for work and advancement.

THE QUILL: The *Quill* is the college literary publication and is normally published once each semester. Each issue contains articles in all fields of student literary interest: short stories, essays, poems, and reviews. Contributions are welcomed from all members of the College.

THE BUGLE: The *Bugle* is the college yearbook published by the junior class. The board is composed of students with a faculty adviser.

MUSIC: Music activities include the Bowdoin Bachelors, an octet; the Meddiebempsters, an augmented double quartet; the Glee Club; the Chapel Choir; the Bowdoin Marching Band; and the Brass Ensemble, which frequently premiers student-written works. All of the singing groups travel extensively and appear in joint concerts with girls' schools and colleges. During the spring of 1969 the Chapel Choir organized a trip to France and sang in many of that country's leading cathedrals. The band performs at football games and at many home hockey and basketball games.

RADIO: In WBOR, "Bowdoin-on-Radio," the College has a well-equipped FM radio station as the result of a gift from the Class of 1924. Situated on the second floor of the Moulton Union, both studios and the control room are sealed against disturbances of sound with acoustical tiling and sound-lock doors. The station is equipped to produce high-fidelity broadcasts.

Students and faculty work freely together to cover the average daily run of ten hours on the air. The station has an advisory board, but programming and management are handled entirely by the students.

DEBATING: In addition to the Achorn and Bradbury Prize Debates, an extensive program of intercollegiate debating is sponsored by the Debating Council. The annual interfraternity debate competition for the Wilmot Brookings Mitchell Debate Trophy is under the general supervision of the Council.

THE MASQUE AND GOWN: This college dramatic organization has for over sixty years provided undergraduates with opportunities to give practical expression to their interest in the theater. Townspeople collaborate with the student members of Masque and Gown in many productions. The Executive Committee hopes to continue its policy of producing full-length and one-act plays written by students; the committee also plans to use various experimental production techniques. Under the direction of a member of the Fac-

ulty, and housed in Pickard Theater, the Masque and Gown offers many opportunities for those interested in playwriting, scene design and construction, acting, and business management and publicity.

THE POLITICAL FORUM: This student organization actively fosters the discussion and debate of current political practices and problems of local, state, national, and international interest. The forum has instituted the policy of inviting guest speakers to lecture to the college community.

THE OUTING CLUB: Organized in 1948, the Outing Club sponsors a program of outdoor activities including rock and mountain climbing, cycling, canoeing, and skiing.

THE WHITE KEY: This organization has two functions: to program and supervise all interfraternity athletics, and to serve as the official committee to welcome and make arrangements for the entertainment of teams visiting Bowdoin from other institutions.

THE AFRO-AMERICAN SOCIETY: Primarily to make the black student proud and aware of his heritage and, at the same time, to convey to the white community an understanding of that heritage by emphasizing black contributions to culture, the Afro-American Society was formed by students in 1968. The society is instrumental in the recruitment of black students and assists black freshmen in making the adjustment to college life. The activities of the society are concentrated in the Afro-American Center.

SOCIAL SERVICE: Many Bowdoin students have turned away from the so-called conventional campus-oriented extracurricular activities and have focused their attention on the social problems confronting the nation. In recent years social service projects have involved more than 200 students.

A program that has grown in recent years is the Bowdoin Big Brother program. With the cooperation of parents and local elementary and junior high school officials, Bowdoin students have served as big brothers to many boys in the Brunswick area. Big brothers usually spend several hours a week with their little brothers in activities intended to provide the male companionship that every boy needs.

For other students the Pineland Project is a way to be of service to the community. Located in Pownal, about fifteen miles from the campus, Pineland Hospital and Training Center is a state-supported institution for the mentally retarded. Students go there

about once a week to serve as companions to patients or to assist the staff in other ways, according to the needs of the staff and the interest and abilities of the students.

Students interested in teaching careers are often members of Bowdoin Undergraduate Teachers, an organization that assists teachers in the Brunswick school system. Juniors and seniors who are in good academic standing and have the permission of their major department may receive classroom assignments.

Other students participate in the Bowdoin-Brunswick Tutorial program. This program is open to all Bowdoin students who are interested in tutoring local school children.

RELIGIOUS LIFE: Religious activities at Bowdoin are controlled by the students. In recent years the Bowdoin Christian Association, the Bowdoin Episcopal Student Association, the Bowdoin Newman Apostolate, the Bowdoin Jewish Association, and the Student Religious Liberals have been active. Each has planned activities appropriate to its membership. Thus, the Newman Apostolate has sponsored weekly folk Masses on the campus, interested Protestant students have gathered for weekly Bible study, and the Jewish Association has sponsored a weekly Shabbat eve service.

Physical Education and Athletics

BOWDOIN believes that physical education is an important part of the total educational program. The Department of Physical Education provides students with opportunities for satisfying experience in physical activities for the achievement of health and physical fitness. The physical education program includes classes which emphasize instruction in sports activities with carry-over value, a year-round schedule of intramural athletics for the whole student body, and intercollegiate competition on the varsity and freshman level in sixteen sports. Students are encouraged to use the athletic facilities to participate in free recreational play.

PHYSICAL EDUCATION: The department offers courses of instruction in sports which students may enjoy for many years after college, learning skills that should give them an interest in physical activity in later life. Instruction will be given in tennis, squash, sailing, skating, weight training, volleyball, badminton, swimming, water polo, life saving, scuba diving, fly fishing, and other comparable activities.

INTERCOLLEGIATE ATHLETICS: Bowdoin offers intercollegiate competition in the following sports: football, cross-country, basketball, track (winter and spring), swimming, hockey, wrestling, lacrosse, skiing, golf, tennis, baseball, rifle, soccer, squash, and sailing (fall and spring). Varsity and freshman teams are maintained in most of these sports, giving every undergraduate an opportunity to try out for the sport of his choice.

INTRAMURAL ATHLETICS: Competition between fraternities is scheduled in softball, touch football, basketball, hockey, track, swimming, sailing, bowling, squash, and volleyball. Undergraduates not actively engaged in intercollegiate sports during a given season are eligible for intramural contests.

OUTDOOR FACILITIES: The outdoor athletic facilities of the College are excellent. Whittier Field is a tract of five acres that is used for football games and outdoor track. It has a grandstand with team rooms beneath it. Pickard Field is a tract of over seventy acres that includes two baseball diamonds; spacious playing fields for lacrosse, soccer, football, touch football, and softball; ten tennis courts; and a field house.

INDOOR FACILITIES: With the completion of the Morrell Gymnasium in 1965, the College possesses indoor facilities that are the equal of its outstanding outdoor facilities. The 50,000-square-foot building, connected to the Sargent Gymnasium, contains a modern basketball court with seats for about 2,500 persons, four visiting team rooms, eleven squash courts, locker room with 500 lockers, shower facilities, modern fully equipped training room, adequate offices for the director of athletics and his staff, and other rooms for physical education purposes. Sargent Gymnasium has been altered and renovated to include a wrestling room, a weight-training room, and two special exercise rooms, and to make it an efficient part of the comprehensive plan. The Hyde Athletic Building, which is attached to the Sargent Gymnasium, includes a cinder track, facilities for field events, a banked board track, and a baseball infield. Completing the athletic facilities are the Curtis Swimming Pool, containing a pool thirty feet by seventy-five feet, and the Arena, which has a refrigerated ice surface eighty-five feet by two hundred feet and seating accommodations for 2,400 spectators.

Career Counseling and Placement

THE College offers assistance to students and graduates in solving the problem of employment, both during their undergraduate courses and afterward. Opportunities for undergraduates to do part-time work at the College or in the community may usually be obtained through the Student Aid Office.

Students are encouraged to register early in their college career and to consult the director in Banister Hall for vocational counsel and guidance if the work of the office is to be most effective in placing men upon graduation in the positions for which they are best qualified.

The campus career interviews are planned to broaden the student's vocational interest and to aid him in selecting his life's work. Each student should survey his abilities objectively and study the demands of business, the occupations, and the professions in order to assist him in his planning. Students with a definite goal in mind usually approach their work with an earnestness of purpose. While the selection of a career must necessarily be left to the student, it should not be deferred too long or left to chance. The office has information available to help guide the applicant. Extensive literature, including occupational monographs and recent books on business careers, are at the disposal of the students. The candidate's undergraduate record—including classroom work, vocational aptitude tests, and extracurricular activities—is used to determine his availability for positions after graduation.

The office continually expands its contacts with employers, acting as an intermediary for the exchange of vocational information between employers and registrants. Representatives of industry are invited to the campus to confer with students and to discuss not only the qualifications necessary for success in their special fields but to explain the opportunities offered to college men. During the fall business conferences are usually held for the benefit of registrants. The Alumni Committees broaden the contacts available for registrants. The office provides the Area Committees with information necessary for proper classification and counseling of candidates referred to them.

Students planning to enter graduate school should consult with one of the deans and the chairmen of their major departments. No charge is made for services rendered to candidates or employers.

Prizes and Distinctions

THE BOWDOIN PRIZE

THE BOWDOIN PRIZE: A fund, now amounting to \$29,754, established as a memorial to William John Curtis, LL.D., of the Class of 1875, by his wife and children. The prize, four-fifths of the total income, is to be awarded "once in each five years to the graduate or former member of the College, or member of its faculty at the time of the award, who shall have made during the period the most distinctive contribution in any field of human endeavor. The prize shall only be awarded to one who shall, in the judgment of the committee of award, be recognized as having won national and not merely local distinction, or who, in the judgment of the committee, is fairly entitled to be so recognized." (1928)

The first award was made in 1933 to Fred Houdlett Albee, M.D., Sc.D., LL.D., of the Class of 1899. Other recipients have been: in 1938, Harvey Dow Gibson, LL.D., of the Class of 1902, and Paul Howard Douglas, Ph.D., LL.D., Litt.D., of the Class of 1913; in 1948, Kenneth Charles Morton Sills, L.H.D., LL.D., of the Class of 1901; in 1954, Rear Admiral Donald Baxter MacMillan, Sc.D., of the Class of 1898; in 1958, Harold Hitz Burton, Jur.D., LL.D., of the Class of 1909; in 1963, William Hodding Carter, Jr., Litt.D., L.H.D., LL.D., of the Class of 1927; in 1968, Austin Harbutt MacCormick, Sc.D., LL.D., of the Class of 1915.

UNDERGRADUATE PRIZES

PRIZES IN GENERAL SCHOLARSHIP

BROWN MEMORIAL SCHOLARSHIPS: A fund for the support of four scholarships in Bowdoin College given by the Honorable J. B. Brown, of Portland, in memory of his son, James Olcott Brown, A.M., of the Class of 1856. According to the provisions of this foundation, there will be paid annually the income of \$1,000 to the best scholar in each undergraduate class who shall have graduated at the high school in Portland after having been a member thereof not less than one year. (1865)

ALMON GOODWIN PRIZE FUND: This fund of \$1,190 was established by Mrs. Maud Wilder Goodwin in memory of her husband, Almon Goodwin, of the Class of 1862. The annual income, approximately \$100, is awarded to a Phi Beta Kappa man chosen by vote of the Board of Trustees of the College at the end of the recipient's junior year. (1906)

GEORGE WOOD McARTHUR PRIZE: A fund of \$2,000 bequeathed by Almira L. McArthur, of Saco, in memory of her husband, George Wood McArthur, of the Class of 1893. The annual income is awarded as a prize to that member of the graduating class who, coming to Bowdoin as the recipient of a prematriculation scholarship, shall have attained the highest academic standing among such recipients within the class. (1950)

THE LEONARD A. PIERCE MEMORIAL FUND will support a prize to be awarded each year to that member of the graduating class of the College continuing his education in an accredited law school, who has attained the highest scholastic average during his years in college, such prize to be paid to the recipient on his enrollment in law school. (1961)

DEPARTMENTAL PRIZES

SUE WINCHELL BURNETT MUSIC PRIZE: A prize consisting of the annual income of a fund of \$1,396 established by Mrs. Rebecca P. Bradley in memory of Mrs. Sue Winchell Burnett. It is awarded upon recommendation of the Department of Music to that member of the senior class who has majored in music and has made the most significant contribution to music while a student at Bowdoin. If two students make an equally significant contribution, the prize will be divided equally between them. (1963)

CLASS OF 1875 PRIZE IN AMERICAN HISTORY: A prize consisting of the annual income of a fund of \$4,545 established by William John Curtis, LL.D., of the Class of 1875, is awarded to the student who writes the best essay and passes the best examination on some assigned subject in American history. (1901)

COPELAND-GROSS BIOLOGY PRIZE: A prize, named in honor of Professors Emeriti Manton Copeland and Alfred Otto Gross, is given by the Department of Biology to that graduating senior who has best exemplified the idea of a liberal education during the major program in biology. (1959)

HANNIBAL HAMLIN EMERY LATIN PRIZE: A prize consisting of the annual income of a fund of \$1,190 is awarded to a member of the junior or senior class for proficiency in Latin. (1922)

FESSENDEN PRIZE IN GOVERNMENT: A prize of \$25, the gift of Richard Dale, of the Class of 1954, is given by the Department of Government to that graduating senior who as a government major has made the greatest improvement in his studies in government, who has been accepted for admission into either law or

graduate school or has been accepted for employment in one of certain federal services, and who is a United States citizen. (1964)

GOODWIN FRENCH PRIZE: A prize consisting of the annual income of a fund of \$650 given by the Reverend Daniel Raynes Goodwin, D.D., of the Class of 1832, is awarded to the best scholar in French. (1890)

NATHAN GOOLD PRIZE: A prize consisting of the annual income of a fund of \$2,577 established by Abba Goold Woolson, of Portland, in memory of her grandfather. It is awarded to that member of the "Senior Class who has, throughout his college course, attained the highest standing in Greek and Latin studies." (1922)

EDWIN HERBERT HALL PHYSICS PRIZE: A prize, named in honor of Edwin Herbert Hall, of the Class of 1875, the discoverer of the Hall Effect, is awarded each year to the best freshman scholar in the field of physics. (1953)

EDWARD SANFORD HAMMOND MATHEMATICS PRIZE FUND: Established by former students of Edward S. Hammond, Ph.D., Wing Professor of Mathematics Emeritus, upon the occasion of his retirement, the income is used for a prize book to be awarded upon recommendation of the faculty of the Department of Mathematics to a graduating senior who is completing with distinction a major in mathematics. Any balance of the income from the fund may be used to purchase books for the use of the Department of Mathematics. (1963)

SUMNER INCREASE KIMBALL PRIZE: A prize consisting of the annual income of a fund of \$2,799 established by the Honorable Sumner Increase Kimball, Sc.D., of the Class of 1855, is awarded to that member of the senior class who has "shown the most ability and originality in the field of the Natural Sciences." (1923)

EATON LEITH FRENCH PRIZE: The annual income of a fund of \$1,000 is awarded to that member of the junior class who, by his proficiency and scholarship, achieves outstanding results in the study of French literature. The prize was established in 1962 and endowed in 1966 by James M. Fawcett III, of the Class of 1958, to honor Eaton Leith, A.M., professor of Romance languages. (1962)

NOEL C. LITTLE PRIZE IN EXPERIMENTAL PHYSICS: A prize named in honor of Noel C. Little, of the Class of 1917, professor of physics emeritus, and Josiah Little Professor of Natural Science Emeritus, to be awarded "to a graduating senior who has distinguished himself in experimental physics." (1968)

CHARLES HAROLD LIVINGSTON HONORS PRIZE IN FRENCH: The annual income of a fund of \$1,114 is awarded to encourage independent scholarship in the form of honors theses in French. The fund was established by former students of Charles Harold Livingston, Ph.D., Longfellow Professor of Romance Languages, upon the occasion of his retirement. (1956)

DONALD AND HARRIET S. MACOMBER PRIZE IN BIOLOGY: A fund of \$5,875 established by Dr. and Mrs. Donald Macomber in appreciation for the many contributions of Bowdoin in the education of members of their family—David H. Macomber '39, Peter B. Macomber '47, Robert A. Zottoli '60, David H. Macomber, Jr. '67, and Steven J. Zottoli '69. The income of the fund is to be awarded annually as a prize to the outstanding student in the Department of Biology. If in the opinion of the department in any given year there is no student deemed worthy of this award, the award may be withheld and the income for that year added to the principal of the fund. (1967)

PHILIP WESTON MESERVE FUND: A prize consisting of the annual income of a fund of \$605 in memory of Professor Philip Weston Meserve, of the Class of 1911, "to be used preferably to stimulate interest in Chemistry." (1941)

NOYES POLITICAL ECONOMY PRIZE: A prize consisting of the annual income of a fund of \$1,190 established by Crosby Stuart Noyes, A.M. (Bowdoin, 1887), is awarded to the best scholar in political economy. (1897)

THE OLD BROAD BAY PRIZES IN READING GERMAN: The income from a fund of \$1,324 given by Jasper J. Stahl, Litt.D., of the Class of 1909, and by others to be awarded to students who in the judgment of the department have profited especially from their instruction in German. The fund is established as a living memorial to those remembered and unremembered men and women from the valley of the Rhine who in the eighteenth century founded the first German settlement in Maine at Broad Bay, which is now Waldoboro. (1964)

PRAY ENGLISH PRIZE: A prize consisting of the annual income of a fund of \$1,288 given by Thomas Jefferson Worcester Pray, M.D., of the Class of 1844, is awarded to the best scholar in English literature and original English composition. (1889)

SEWALL GREEK PRIZE: A prize of \$25 from the income of a fund given by Jotham Bradbury Sewall, D.D., of the Class of 1848, for-

merly professor of Greek in the College, is awarded to the member of the sophomore class who sustains the best examination in Greek.
(1879)

SEWALL LATIN PRIZE: A prize of \$25 from the income of a fund also given by Professor Sewall, is awarded to the member of the sophomore class who sustains the best examination in Latin.
(1879)

DAVID SEWALL PREMIUM: A prize consisting of the annual income of a fund of \$1,238 is awarded to a member of the freshman class for excellence in English composition.
(1795)

BERTRAM LOUIS SMITH, JR., PRIZE: A bequest of \$4,059 from Bertram Louis Smith, in memory of his son, a member of the Class of 1903, to encourage excellence of work in English literature. The annual income of this fund is awarded by the department to a member of the junior class who has completed two years' work in English literature. Ordinarily it is awarded to a student majoring in English and performance of major work as well as record in courses is taken into consideration.
(1925)

SMYTH MATHEMATICAL PRIZE: A fund of \$6,952, the gift of Henry Jewett Furber, of the Class of 1861, named by him in honor of Professor William Smyth. Three hundred dollars, the income of the fund, is given to that student in each sophomore class who obtains the highest rank in the mathematical studies of the first two years. The rank is determined mainly by the daily recitations, but the Faculty may in its discretion order a special examination, the result of which will be combined with the recitation rank. The successful candidate receives one-third of the prize at the time the award is made. The remaining two-thirds is paid to him in installments at the close of each term during junior and senior years. If a vacancy occurs during those years, the next in rank secures the benefit of the prize for the remainder of the time.
(1876)

LEA RUTH THUMIM BIBLICAL LITERATURE PRIZE: A prize consisting of the annual income of a fund of \$1,050 given by Carl Thumim in memory of his wife, Lea Ruth Thumim, is awarded each year by the Department of Religion to the best scholar in biblical literature.
(1959)

PRIZES IN DEBATING AND SPEAKING

EDGAR OAKES ACHORN PRIZE FUND: The income of this fund of \$1,214 is distributed as prizes to the winning team in an annual debate between members of the freshman and sophomore classes. First prize, approximately \$60; second prize, approximately \$40.
(1932)

ALEXANDER PRIZE FUND: This fund of \$1,488 was established by the Honorable DeAlva Stanwood Alexander, LL.D., of the Class of 1870, and furnishes two prizes, three-fifths and two-fifths of the annual income for excellence in select declamation. Competition is open to freshmen, sophomores, and juniors. First prize, approximately \$75; second prize, approximately \$50. (1905)

BRADBURY DEBATING PRIZE: The annual income on \$2,130 of a fund of \$5,130 given by the Honorable James Ware Bradbury, LL.D., of the Class of 1825, is awarded for excellence in debating. First team, approximately \$120; second team, approximately \$60. (1901)

CLASS OF 1868 PRIZE: A prize of \$100 supported from a fund contributed by the Class of 1868, is awarded to the author of the second-best Commencement Part. (1868)

HILAND LOCKWOOD FAIRBANKS PRIZE FUND: This fund of \$2,385 was established by Captain Henry Nathaniel Fairbanks, of Bangor, in memory of his son, Hiland Lockwood Fairbanks, of the Class of 1895. Of the annual income of approximately \$200, one-half is awarded as a single prize of approximately \$50 for excellence in both advanced public speaking (*Speech* 5) and in debate (*Speech* 6), and the remaining one-half, in a two-to-one ratio, is to be awarded as first and second prizes to the two outstanding students in the fall semester of *Speech* 1. (1909)

GOODWIN COMMENCEMENT PRIZE: Established by the Reverend Daniel Raynes Goodwin, D.D., of the Class of 1832, a prize of \$200 is awarded to the author of the best Commencement Part. (1882)

WILMOT BROOKINGS MITCHELL DEBATE TROPHY: This trophy, presented by an anonymous donor, is to be inscribed annually with the winner of a competition among the undergraduate groups and awarded to that group which has won three annual competitions. (1953)

STANLEY PLUMMER PRIZES: Of the annual income of approximately \$100 of a fund of \$1,056 established by Stanley Plummer, of the Class of 1867, first and second prizes, in a two-to-one ratio, will be awarded to the two outstanding students in the spring semester of *Speech* 1. (1919)

ESSAY PRIZES

PHILO SHERMAN BENNETT PRIZE FUND: This fund of \$602 was established by the Honorable William Jennings Bryan from trust funds of the estate of Philo Sherman Bennett, of New Haven, Connecticut. The proceeds are used for a prize of approximately

\$50 for the best essay discussing the principles of free government. Competition is open to juniors and seniors. (1905)

BROWN COMPOSITION PRIZES: Two prizes of approximately \$70 and \$50, the annual income of a fund of \$1,431 established by Philip Greely Brown, of the Class of 1877, in memory of Philip Henry Brown, Esq., of the Class of 1851, are offered to members of the senior class for excellence in extemporaneous English composition. (1874)

HORACE LORD PIPER PRIZE: A prize consisting of the income of a fund of \$1,448 established by the Honorable Sumner Increase Kimball, Sc.D., of the Class of 1855, in memory of Major Horace Lord Piper, of the Class of 1863. It is awarded to that member of the sophomore class who presents the best "original paper on the subject calculated to promote the attainment and maintenance of peace throughout the world, or on some other subject devoted to the welfare of humanity." (1923)

PRIZES IN CREATIVE ARTS

BOWDOIN ORIENT PRIZES: Six cash prizes are offered by the Bowdoin Publishing Company and are awarded each spring to those junior class members of *The Bowdoin Orient* staff who have made the most significant contribution to the various departments of the *Orient* in the preceding volume. (1948)

ABRAHAM GOLDBERG PRIZE: A prize of \$10, from a bequest of Abraham Goldberg, is awarded annually to that member of the senior class who, in the opinion of a faculty committee of which the director of dramatics is chairman, has shown, in plays presented at the College during the two years preceding the date of award, the most skill in the art of designing or directing. (1960)

HAWTHORNE PRIZE: The income of a fund of \$261 given in memory of Robert Peter Tristram Coffin, B.Litt.(Oxon.), Litt.D., of the Class of 1915, Pierce Professor of Literature, and in memory of the original founders of the Hawthorne Prize: Nora Archibald Smith and Mrs. George C. Riggs (Kate Douglas Wiggin), Litt.D. It is awarded each year to the author of the best short story. The competition is open to members of the sophomore, junior, and senior classes. (1903)

MASQUE AND GOWN FIGURINE: A figurine, "The Prologue," carved by Gregory Wiggin, is presented annually to the author of the prize-winning play in the One-Act Play Contest, and held by him until the following contest. (1937)

MASQUE AND GOWN ONE-ACT PLAY PRIZES: Cash prizes are awarded annually for excellence in various Masque and Gown activities, including playwriting, directing, and acting. (1934)

ALICE MERRILL MITCHELL PRIZE: A prize consisting of the annual income of a fund of \$2,095 given by Wilmot Brookings Mitchell, L.H.D., Litt.D., of the Class of 1890, Edward Little Professor of Rhetoric and Oratory, in memory of his wife, Alice Merrill Mitchell, is awarded annually to that member of the senior class who, in the opinion of a faculty committee of which the director of dramatics is chairman, has shown, in plays presented at the College during the two years preceding the date of award, the most skill in the art of acting. (1951)

POETRY PRIZE: A prize of \$15 is given each semester for the best poem on Bowdoin written by an undergraduate. (1926)

GEORGE H. QUINBY AWARD: Established in honor of "Pat" Quinby, for thirty-one years director of dramatics at Bowdoin College, by his former students and friends in Masque and Gown, the award is presented annually to the first-year member of Masque and Gown who makes an outstanding contribution through his interest and participation in Masque and Gown productions. The recipient is selected by the director of dramatics, the theater technician, and the president of Masque and Gown. (1967)

FORBES RICKARD, JR., POETRY PRIZE: A prize consisting of the annual income of a fund of \$555 given by a group of alumni of the Alpha Delta Phi Fraternity at the College in memory of Forbes Rickard, Jr., of the Class of 1917, who lost his life in the service of his country, is awarded to the undergraduate writing the best poem. (1919)

MARY B. SINKINSON SHORT STORY PRIZE: A prize consisting of the annual income of a fund of \$2,000 established by John Hudson Sinkinson, of the Class of 1902, in memory of his wife, Mary Burnett Sinkinson, is awarded each year for the best short story written by a member of the junior or senior class. (1961)

AWARDS FOR CHARACTER AND LEADERSHIP

CURTIS E. CHASE MEMORIAL FUND AWARD: A prize in memory of Curtis E. Chase, of the Class of 1965, the first Bowdoin alumnus killed in the Vietnam war. It consists of the income from the Curtis E. Chase Memorial Fund, having a balance of \$4,093, which was established by his family and friends, and is awarded each fall without regard to financial need to a member of the incoming senior

class who is also a member of the ROTC unit and who realizes "the importance of serving the United States to the best of his ability." The recipient is to be "active in sports and a student eager to learn" and "a man of promise in the qualities of civilian or military leadership that make for citizenship in the best American tradition." Selection is made by the dean of the College, the director of athletics, and the director of the ROTC program. (1969)

LESLIE A. CLAFF TRACK TROPHY: A trophy presented by Leslie A. Claff, of the Class of 1926, to be awarded "at the conclusion of the competitive year to the outstanding performer in track and field athletics who, in the opinion of the Dean, the Director of Athletics, and the Track Coach, has demonstrated outstanding ability accompanied with those qualities of character and sportsmanship consistent with the aim of intercollegiate athletics in its role in higher education." (1961)

FRANCIS S. DANE BASEBALL TROPHY: A trophy presented to the College by friends and members of the family of Francis S. Dane, of the Class of 1896, is awarded each spring "to that member of the varsity baseball squad who, in the opinion of a committee made up of the Dean of the College, the Director of Athletics, and the Coach of Baseball, best exemplifies high qualities of character, sportsmanship, and enthusiasm for the game of baseball." (1965)

WILLIAM J. FRASER BASKETBALL TROPHY: The William J. Fraser Basketball Trophy, presented by Harry G. Shulman in memory of William J. Fraser, of the Class of 1954, is awarded annually to that member of the basketball team who best exemplifies the spirit of Bowdoin basketball. The recipient is selected by the coach, the athletic director, and the dean of the College. (1969)

ANDREW ALLISON HALDANE CUP: A cup given by fellow officers in the Pacific in memory of Captain Andrew Allison Haldane, USMCR, of the Class of 1941, awarded to a member of the senior class who has outstanding qualities of leadership and character. (1945)

LUCIEN HOWE PRIZE: A fund of \$5,074, given by Lucien Howe, M.D., Sc.D., of the Class of 1870. Fifty dollars from the income is "awarded by the Faculty to that member of the Senior Class who, during his college course, by example and influence has shown the highest qualities of gentlemanly conduct and character, the award to be either in cash or in the form of a medal, according to the wish of the recipient." The remainder is expended by the president to improve the social life of the undergraduates. (1920)

WINSLOW R. HOWLAND FOOTBALL TROPHY: A trophy presented to the College by friends of the late Winslow R. Howland, of the Class of 1929, is awarded each year to that member of the varsity football team who has made the most marked improvement on the field of play during the football season, and who has shown the qualities of cooperation, aggressiveness, enthusiasm for the game, and fine sportsmanship so characteristic of Winslow Howland.

(1959)

ELMER LONGLEY HUTCHINSON CUP: A cup given by the Chi Psi Fraternity at the College in memory of Elmer Longley Hutchinson, of the Class of 1935, is awarded annually to a member of the varsity track squad for high conduct both on and off the field of sport.

(1939)

LADD TENNIS TROPHY: A trophy presented by Samuel Appleton Ladd, Jr., of the Class of 1929, and Samuel Appleton Ladd III, of the Class of 1963, awarded to a member of the varsity team who during the year by his sportsmanship, cooperative spirit, and character has done the most for tennis at Bowdoin. The award winner's name is to be inscribed on the trophy each year.

(1969)

GEORGE LEVINE MEMORIAL SOCCER TROPHY: A trophy presented by Lieutenant Benjamin Levine, coach of soccer in 1958, is awarded to that member of the varsity soccer team exemplifying the traits of sportsmanship, valor, and desire.

(1958)

ROBERT B. MILLER TROPHY: A trophy, given by former Bowdoin swimmers, in memory of Robert B. Miller, coach of swimming, is awarded annually "to the Senior who, in the opinion of the coach, is the outstanding swimmer on the basis of his contribution to the sport." Winners will have their names inscribed on the trophy and will be presented with bronze figurines of swimmers.

(1962)

HUGH MUNRO, JR., MEMORIAL TROPHY: A trophy given by his family in memory of Hugh Munro, Jr., of the Class of 1941, who lost his life in the service of his country. It is inscribed each year with the name of that member of the Bowdoin varsity hockey team who best exemplifies the qualities of loyalty and courage which characterize the life of Hugh Munro, Jr.

(1946)

PAUL NIXON BASKETBALL TROPHY: Given to the College by an anonymous donor, and named in memory of Dean Paul Nixon, LL.D., L.H.D., in recognition of his interest in competitive athletics and sportsmanship, this trophy is inscribed each year with the name of the member of the Bowdoin varsity basketball team who

has made the most valuable contribution to this team through his qualities of leadership and sportsmanship. (1959)

COL. WILLIAM HENRY OWEN PREMIUM: An award of the income of a fund of \$663 established by Frederick Wooster Owen, M.D., in memory of his brother, Colonel William Henry Owen, A.M., of the Class of 1851, is awarded at Commencement "to some graduating student recognized by his fellows as a humble, earnest, and active Christian." (1916)

WALLACE C. PHILOON TROPHY: Given by Wallace Copeland Philoon, M.S., Major General, U.S.A., of the Class of 1905, this trophy is awarded each year to a nonletter winner of the current season who has made an outstanding contribution to the football team. The award is made to a man who has been faithful in attendance and training and has given his best efforts throughout the season. (1960)

WILLIAM J. REARDON MEMORIAL FOOTBALL TROPHY: A replica of this trophy, which was given to the College by the family and friends of William J. Reardon, of the Class of 1950, is presented each year to a senior on the varsity football team who has made an outstanding contribution to his team and his college as a man of honor, courage, and ability, the qualities which William J. Reardon exemplified at Bowdoin College on the campus and on the football field. (1958)

FRANKLIN DELANO ROOSEVELT CUP: A cup, furnished by the Alpha Delta Phi Fraternity at the College, to be inscribed annually with the name of that member of the three lower classes whose vision, humanity, and courage most contribute to making Bowdoin a better college. (1945)

HARRY G. SHULMAN HOCKEY TROPHY: The Harry G. Shulman Hockey Trophy is awarded annually to that member of the hockey squad who has shown outstanding dedication to Bowdoin hockey. The recipient will be elected by a vote of the coach, the athletic director, and the dean of the College. (1969)

PRIZES IN EXTRACURRICULAR ACTIVITIES AND SCHOLARSHIP

JAMES BOWDOIN CUP: This cup, given by the Alpha Rho Upsilon Fraternity, is awarded annually on James Bowdoin Day to the student who in his previous college year has won a varsity letter in active competition and has made the highest scholastic average among the students receiving varsity letters. In case two or more

students should have equal records, the award shall go to the one having the best scholastic record during his college course. The name of the recipient is to be engraved on the cup and the cup retained for the following year by that college group (fraternity or nonfraternity) of which the recipient is a member. (1947)

ORREN CHALMER HORMELL CUP: A cup, given by the Sigma Nu Fraternity at the College, in honor of Orren Chalmer Hormell, Ph.D., D.C.L., DeAlva Stanwood Alexander Professor of Government Emeritus, is awarded each year to a sophomore who, as a freshman, competed in freshman athletic competition as a regular member of a team, and who has achieved outstanding scholastic honors. A plaque inscribed with the names of all of the cup winners is kept on display. (1949)

ROLISTON G. WOODBURY MEMORIAL AWARD: Established in 1963 as the Roliston G. Woodbury Award by the Textile Veterans Association to honor the contributions of Roliston G. Woodbury, of the Class of 1922 and a member of the Board of Overseers, to the textile industry, it was renamed the Roliston G. Woodbury Memorial Award following his death in 1968. The annual award consists of a \$50 U. S. Savings Bond and a bronze medallion and is awarded to a student on the basis of scholarship, leadership, and extracurricular activities. (1963)

MILITARY PRIZES

THE GENERAL PHILOON TROPHY: A cup given by Wallace Copeland Philoon, M.S., Major General, U.S.A., of the Class of 1905, is awarded each autumn to that member of the senior class who has made the best record at the summer camp of the ROTC. (1951)

THE PERSHING-PRESNELL SWORD: A sword presented in honor of General John J. Pershing to Major John Finzer Presnell, Jr., '36, as the First Captain of the Class of 1940 at the United States Military Academy. Following the death of Major Presnell in the Second World War, his parents gave the sword to Bowdoin College. The Pershing-Presnell Sword is assigned to the Cadet Colonel commanding the Bowdoin College Battle Group, Reserve Officers' Training Corps, and the shield bearing the sword is inscribed with his name. (1951)

MISCELLANEOUS PRIZES

ABRAXAS AWARD: A plaque is awarded to the school sending three or more graduates to the College, whose representatives maintain the highest standing during their freshman year. This award was established in 1915 by the Abraxas Society. (1915)

STUDENT COUNCIL CUP: A cup, formerly called the "Friar's Cup" and now given by the Student Council, is awarded at the conclusion of each semester to that fraternity which has attained the highest academic standing during the semester. (1911)

HARVEY DOW GIBSON MEMORIAL TROPHY: A cup in memory of Harvey Dow Gibson, LL.D., of the Class of 1902, is given by the Bowdoin chapter of the Theta Delta Chi Fraternity. It is awarded each fall to that fraternity which has shown the greatest improvement in its scholastic standing during the previous academic year. (1951)

THE PEUCINIAN CUP: A cup, in honor of the Peucinian Society, Bowdoin's first literary-social club (1805), is given by the alumni of Bowdoin fraternity chapters and awarded each February and June to the fraternity whose freshman delegation achieves the highest academic standing for the previous semester. (1938)

PHI BETA KAPPA

The Phi Beta Kappa Society, national honorary fraternity for the recognition and promotion of scholarship, was founded at the College of William and Mary in 1776. The Bowdoin Chapter (Alpha of Maine), the sixth in order of establishment, was founded in 1825.

Election to the Society is on the basis of scholarly achievement, in estimating which, consideration is given primarily to grades in courses, secondarily (at graduation) to departmental honors. Elections may be held twice a year—in February and June. Candidates must have completed twenty-four semester units for college credit.

JAMES BOWDOIN DAY

Named in honor of the earliest patron of the College, James Bowdoin Day was instituted in 1941 to accord recognition to those undergraduates who distinguish themselves in scholarship. At a convocation of the entire college, the exercises consist of the announcement of awards, the presentation of books, a response by an undergraduate, and an address.

The James Bowdoin Scholarships, carrying no stipend, are awarded to undergraduates who have completed two semesters' work, in recognition of high scholarship in their courses to date.

A book, bearing a replica of the early college bookplate serving to distinguish the James Bowdoin Collection in the Library, is presented to every undergraduate who has carried a full course

program and has received a grade of High Honors in each of his courses during the last academic year.

THE FACULTY DEVELOPMENT FUND

This fund, now amounting to approximately \$203,913, was established by Charles Austin Cary, LL.D., of the Class of 1910. The income from the fund is expended each year "for such purpose or purposes, to be recommended by the President and approved by the Governing Boards, as shall be deemed to be most effective in maintaining the caliber of the Faculty." These purposes may include, but not be limited to, support of individual research grants, or productive use of sabbatical leaves, added compensation for individual merit or distinguished accomplishment, and other incentives to encourage individual development of teaching capacity, and improvement of faculty salaries.

FACULTY RESEARCH FUND

This fund, founded by the Class of 1928 on the occasion of its twenty-fifth anniversary, is open to additions from other classes and individuals. The interest from the fund is used to help finance research projects carried on by members of the Faculty.

SUMNER TUCKER PIKE FUND

This fund was established by an anonymous donor in 1966 in recognition of the many significant services to the country and to the College of Sumner T. Pike, LL.D., of the Class of 1913, the fund to be used in accordance with the wishes of the donor that "the principal and/or income of this fund be applied at the discretion of the President of Bowdoin College, preference to be given to support of research and/or publications of studies in the social sciences (including history)."

UNDERGRADUATE RESEARCH ASSISTANCE

SURDNA FOUNDATION UNDERGRADUATE RESEARCH FELLOWSHIP PROGRAM

An undergraduate research fellowship program that was established in 1959 was redesignated in 1968 the Surdna Foundation Undergraduate Research Fellowship Program in recognition of two gifts of the Surdna Foundation, of Yonkers, New York. The income of these gifts underwrites approximately three-fourths of the

program's costs. Under this program, ten fellowships may be awarded annually to highly qualified seniors. Each Surdna Fellow will participate, under the direction of a faculty member, in a research project in which that faculty member is independently interested.

The purpose of the program is to engage the Fellow directly and responsibly in a serious attempt to extend man's knowledge in his field of interest and competence. Each project to which a Fellow is assigned must therefore justify itself independently of the program as a potential contribution to knowledge, and the Fellow is expected to be an actual participant in the research and not, for example, a mere observer or helper. The nature of the project will differ from discipline to discipline, but all should give the Fellow first-hand acquaintance with productive scholarly work. Should the results of the research be published, the faculty member in charge of the work will acknowledge the contribution of the Fellow and of the program; and in some instances it may be appropriate that the Fellow be named as coauthor of the publication.

The Fellows will be chosen each spring for the following academic year. Awards will be made on the basis of the candidate's academic record and departmental recommendation, his particular interests and competence, and the availability at the College of a research project commensurate with his talents and training. Acceptance of a Fellowship does not preclude working for Honors. Since the aim of the program is to give special training to especially gifted students, the financial need of a candidate will not enter into the awarding of the Fellowships; but Fellows are obligated to refrain from all other part-time employment during the academic year.

LIST OF FELLOWS AND PROJECTS: 1970-1971

Biology

Lawrence D. Cohan '71, "Iron Transport During Red Blood Cell Development in Iron Deficiency Anemia" (with Professor James M. Moulton).

Robert N. Turner, Jr. '71, "Membrane Translocation Processes in Cellular and Subcellular Systems" (with Professor C. Thomas Settlemire).

Economics

Richard J. LeGrow '71, "Relationships Between Public Expenditures for General Education and Manpower Training and Changes in the Composition of the U. S. Work Force" (with Professor Edward H. Hanis).

Government

David F. Gordon '71, "Roots of the Chinese Cultural Revolution with Specific Regard to Soviet and 'Third World' Relations" (with Professor John C. Rensenbrink).

History

Albert A. Dobbins '71, "A Study of Popular Pamphleteering in Germany in the Early Sixteenth Century" (with Professor Paul L. Nyhus).

Mathematics

Kent W. Johnson '71, "Investigations in Topological Coincidence Theory" (with Professor Robin B. S. Brooks).

Music

Herbert J. Lovett, Jr. '71, "A Study of English Music Since 1945" (with Professor Elliott S. Schwartz).

Psychology

Francis J. Keefe, Jr. '71, "The Effect of Sensory Preconditioning on the Conditioning of a Voluntary Instructed Response Using Both Adults and Preschool Children" (with Professor Lawrence C. Perlmuter).

Richard E. Schuberth '71, "Investigation of Possible Interference Effects in the Recall of English Sentences" (with Professor Barry L. Lively).

Benjamin R. Toland '71, "Error and Latency Scores in Short-Term Memory" (with Professor Alfred H. Fuchs).

THE ALFRED O. GROSS FUND

This fund, established by Alfred Otto Gross, Ph.D., Sc.D., Josiah Little Professor of Natural Science Emeritus, and members of his family, is designed to assist worthy students in doing special work in biology, preferably ornithology. Income from the fund may be used for such projects as research on Kent Island, travel to a given region or library for particular work, purchase of special apparatus, attendance at an ornithological congress or other scholarly gatherings, and publication of the results of research. Although the fund is administered by Bowdoin College, assistance from the fund is not limited to Bowdoin students.

BOWDOIN FATHERS ASSOCIATION FUND

An annual gift of the Bowdoin Fathers Association is awarded under direction of the president of the College to undergraduates

or graduates to enable the recipients to participate in summer research or advanced study directed towards their major field or life work. The award for 1970, designated the Edward E. Langbein Research Grant in memory of a former president and secretary of the association, was presented to William Thompson Webster, Jr. '72.

Degrees Conferred in August 1969

MASTER OF ARTS

Timothy James Amero
Thomas Byron Baker
David Stewart Daniels
Gilbert Kenneth French
Hazel Petrie Hobin
Morris R. Judson, Jr.
Cynthia Faye Leong
Sister Brenda Morris
Earl Clifford Pike
Elliot Charles Rowsey
Louis Carlton Schroer
Barbara Ann Souza
William Willis Stork
William Hugh Vanderhoof
Helen P. Wooley

Degrees Conferred in June 1970

BACHELOR OF ARTS

Carroll Dana Astbury	Bruce Richard Bragdon
Alfred Blalock Bahnson	Timothy Robert Brennan '69
Richard Keith Barbour	John Lupton Broomell
*Richard Danforth Barr	Stephen Jerome Buchbinder
Paul Hamilton Barton	Frederick Oliver Buckley, Jr.
Paul Amandio Batista	Bruce Harold Buening
David Pillsbury Becker	David Emerson Bullard
Robert Allan Benjamin '66	Timothy Joseph Burke
Thomas Joseph Berry, Jr.	*James Hugh Burr
Malcolm James Best	Edward Howland Burt, Jr.
Charles Moore Boothby	Bruce Edward Cain
James Milton Bowie	Joseph Anthony Calareso
Joel Chandler Bradley	Ronald Mitchel Calitri

- | | |
|------------------------------|------------------------------|
| Richard Howard Card | David Martin Guyette |
| David Richard Carnes | Neil Harris Hamlin |
| Leon Grover Chase II | *Ralph Lyman Harding III |
| William Young Christie, Jr. | Erland Borrner Hardy |
| Roland Everett Christy, Jr. | Stephen Hall Hardy |
| Charles Himes Clapp | Loring Edwards Harkness III |
| John Bradford Cole | Thomas Edward Harvey |
| *David Jeffrey Corcoran | Charles Gilbert Hatch, Jr. |
| †Neal Craig Corson '69 | Lloyd Norris Henderson |
| †‡Gordon Christopher | §Thomas Weston Hill |
| Crighton | Roger Vance Homer |
| Richard Carleton Crispin | Stephen Craig Hopkins |
| Kenneth Allan Cuneo | Jeffrey Garabed Hovhanesian |
| Howard Stephen Cutler | Hylan Thomas Hubbard III |
| Gregory Joseph Darling | '69 |
| *Henry Philips Day, Jr. | Clark Thomas Irwin, Jr. |
| John David Delahanty | George Steven Isaacson |
| John Haynes Demenkoff | Howard Rollin Ives III |
| Michael Bernard Denoncour | Jeffery Arthur Jacobs |
| Stephen Michael Devine | Allan Perley Jarvis, Jr. |
| Cameron Kennedy Dewar | Richard Thomas Jerue |
| Charles Earle Dinsmore '69 | Alfred Jacobsen Jessel |
| Gilbert Blake Dodd | Leonard Ware Johnson, Jr. |
| †Bruce Campbell Dow | John Flagg Johnston '66 |
| Brian Dublirer | Bruce Christopher Jordan '69 |
| Robert Francis Eddy | Jon Arlington Joseph |
| Donald Danforth Edinger, Jr. | Emanuel John Kallina II |
| Clifton George Eliason | John Andrew Kapitula, Jr. |
| Richard Halsey Ellerhorst | Keith Edward Karlsson |
| Jeff Douglas Emerson | Frederick Katzenberg |
| John Francis Erkkinen | Mark Elbridge Kelley III |
| Anthony Louis Esposito | Stephen William Kennedy |
| Mark Joseph Esposito '69 | David Linvill Knight '69 |
| Lester Jaeger Evans | Robert William Knowles |
| Paul McGovern Fagan | Alan Kolod |
| Robert Kim Ficker | Kenneth Mark Kornetsky |
| Eugene Earl Ford, Jr. | *Kalevi Eero Kotkas |
| Bruce Edward Fulton | *Bernard Jerome Kubetz |
| Michael Laszlo Garroway | Richard Paul Lampert |
| Harry Allan George | Stephen Bickford Lang |
| Robert Stuart Glazer | Bertus Clark Lauren '69 |
| David Clarke Gleason | Thomas Nalle Lea |
| Peter Reading Grenon | Allan Wesley LeGrow |

Mark Stuart Levine	Eric Clayton Ramsdell
Kenneth Samuel Lidman	Joseph Parker Redman
Thomas Jan Lindblad	Jeffrey Eugene Reichel
David Charles Lowe	Walter Lee Reitz III
Frederick Wellington Lyman	Roger Alexander Renfrew
Robert Galbraith Mac-	Arthur Patrick Rice
Dermid III	John William Rodgers
Philip Laurence McEniry	Campo Elias Romero
John Hutchins McGrath	Fuenmayor '69
Peter Leonard McMann	Larry Emerson Rowe
Douglas Williamson Mahan	Lee Dickinson Rowe
Ronald Lee Marchetti	Steven John Rustari
Thomas Sydney Marjerison	Thomas Ryan
III	Frank Fabean Sabasteanski,
Robert Kenneth Maxwell	Jr. '69
James Mazareas	† Wayne Coffman Sanford
Daniel Allen Meade	Byron Antonio Santos Flores
Robert Dennis Mercurio	Richard Henry Saunders III
Bruce Rowland Merrell	Michael Allan Schuyler
Richard Somers Mickley	Steven Mark Schwartz
August Charles Miller III	Rubin Gerald Segal
Richard Copeland Miller	Douglas Mark Sewall
William Michael Minihane	John Paul Sheehy
Edward Otis Minot	Paul Leslie Sherman, Jr.
Brian Patrick Mitchell	Carl Laurence Shesler
Donald Charles Mitchell	Douglas Keith Showalter
John Dale Mitchell	John Harrison Siegle
Thomas Allison Mleczko	David Arthur Siskind
Richard Edward Morley	Mark Bennett Snyder
Paul Andrew Moses	John Shafer Spencer
Richard Edwin Nilson	Richard Stephen Spill
John Wesley Olson	James Frederick Sterio
Larry Michael Paglia	Jon Kogod Sternburg
Kenneth Haskell Payson '68	Barry Alan Stevens
*Frederick Raymond Pekrul,	Wayne Ralph Strasbaugh
Jr.	Robert Allan Stuart, Jr.
Theodore Downey Peters	David Mark Sullivan '69
Thomas Jay Plagenhoef	Robert Charles Sweeney
Walter Newman Plaut, Jr.	Steven Rodd Tallow
*Steven Harold Plourde	Harrison Tate, Jr.
George Walter Price	John Claridge Taylor
Lawrence Putterman	Stephen Douglas Taylor
Philip David Ramsay '69	† Dale Henry Tomlinson

David Allan Tracy	Willard Pearson Warwick
Alexander MacGregor	Thomas Henry Watkins, Jr.
Turner	Donald Francis Weafer, Jr.
George Scothorne Turner	John David Weiss
Hubert Clyde Vanhorn Smith	Godfrey Wetterlow
*Peter Fred Varney	Calvin Stanley Whitehurst '68
Robert Hallowell Vaughan	Barry Leslie Wilson
Donald Francis Vose '68	Peter Clinton Wilson
Richard William Waldron	Joseph Mark Wisniewski, Jr.
Thomas Stuart Walker	Norbert Wilfred Young, Jr.
Timothy Matlack Warren, Jr.	Robert MacLeod Young, Jr.

* Commissioned Second Lieutenant, United States Army Reserve, June 1970.

† ROTC Aviator.

‡ Commissioned Second Lieutenant, Regular Army of the United States, June 1970.

§ Commissioned Second Lieutenant, United States Marine Corps Reserve, June 1970.

MASTER OF ARTS

David Dale Bohlmann	Susan Murray Hudkins
Eileen Mullen Conners	Neil Jerome Johanson
Donald Ray DeWitt	Arnold Wayne Kaupp
Rodd Leroy Hopper	Sister Martha Ann Kelley
Charles Ronald Hudkins, Jr.	Eleanor Ann McGill

RECIPIENTS OF HONORARY DEGREES

Doctor of Education

John Knight Moulton

Doctor of Fine Arts

Andrew Wyeth

Doctor of Laws

John Lincoln Baxter
Everett Frederic Morrow
Donald Wedgwood Webber

Doctor of Literature

Charles Mitchell

Appointments, Prizes and Awards

PHI BETA KAPPA ELECTIONS

Class of 1970

Paul Hamilton Barton	Daniel Allen Meade
Paul Amandio Batista	William Michael Minihane
Bruce Edward Cain	Lawrence Putterman
William Young Christie, Jr.	Roger Alexander Renfrew
Charles Himes Clapp	Steven John Rustari
Gordon Christopher Crighton	Wayne Coffman Sanford
Henry Philips Day, Jr.	Steven Mark Schwartz
Eugene Earl Ford, Jr.	Douglas Keith Showalter
Neil Harris Hamlin	Wayne Ralph Strasbaugh
Richard Paul Lampert	Peter Clinton Wilson

Class of 1971

Lawrence David Cohan	Harry Dean Demeter
Kent William Johnson	

HONORARY APPOINTMENTS

Summa Cum Laude

Bruce Edward Cain	Steven John Rustari
Charles Himes Clapp	Wayne Ralph Strasbaugh

Magna Cum Laude

Paul Hamilton Barton	Richard Paul Lampert
Paul Amandio Batista	Daniel Allen Meade
William Young Christie, Jr.	William Michael Minihane
Gordon Christopher Crighton	Lawrence Putterman
Henry Philips Day, Jr.	Roger Alexander Renfrew
Eugene Earl Ford, Jr.	Wayne Coffman Sanford
Neil Harris Hamlin	Steven Mark Schwartz
	Peter Clinton Wilson

Cum Laude

Carroll Dana Astbury	Joseph Anthony Calareso
James Milton Bowie	David Jeffrey Corcoran
Joel Chandler Bradley	Richard Carleton Crispin
Stephen Jerome Buchbinder	Gregory Joseph Darling

Donald Danforth Edinger, Jr.	Robert Dennis Mercurio
John Francis Erkkinen	Brian Patrick Mitchell
Harry Allan George	Frederick Raymond Pekrul, Jr.
David Martin Guyette	George Walter Price
Erland Borrner Hardy	Larry Emerson Rowe
Stephen Hall Hardy	Lee Dickinson Rowe
Roger Vance Homer	Richard Henry Saunders III
Clark Thomas Irwin, Jr.	Michael Allan Schuyler
George Steven Isaacson	Rubin Gerald Segal
Alfred Jacobsen Jessel	Douglas Mark Sewall
Robert William Knowles	Douglas Keith Showalter
Allan Wesley LeGrow	John Harrison Siegle
Thomas Jan Lindblad	Robert Charles Sweeney
Thomas Sydney Marjerison III	Alexander MacGregor Turner
Norbert Wilfred Young, Jr.	

HONORS IN SUBJECTS AND TITLES OF THESES

ART: *High Honors*, Norbert Wilfred Young, Jr., *American Aesthetics and Commercial Architecture: A Case in Point*.

Honors, Frederick Wellington Lyman, *Robert Cooke: A Neglected American Artist*.

BIOLOGY: *Highest Honors*, Edward Howland Burt, Jr., *Vital Statistics of a Seabird Population*.

Charles Earle Dinsmore '69, *Tissue Replacement Potential of the Blastema in the Adult Newt, Notophthalmus viridescens*.

Roger Alexander Renfrew, *The Effect of Chloramphenicol on the Active Uptake of Amino Acids and Metal Cations by the Mitochondrial Membrane*.

Honors, Bruce Richard Bragdon, *A Staining Method and Computer Analysis of Karyotypes of Human Chromosomes*.

Donald Danforth Edinger, Jr., *The Isolation and Characterization of a Toxic Substance Occurring in the Naked Dinoflagellate Gymnodinium breve Davis*.

Brian Patrick Mitchell, *Physiological Implications of Thyrocalcitonin in the Race X (Dwarf) Rabbit of the Jackson Laboratory, Bar Harbor, Maine*.

CHEMISTRY: *Highest Honors*, Charles Himes Clapp, *Complexes of Chalcogen Bridged Ditertiary Phosphine Sulfides*.

High Honors, Joel Chandler Bradley, *Isolation and Structural Determination of a New Cadinol from Copaiba Oil*.

Richard William Waldron, *Complexes of Methylene Bridged Ditertiary Phosphine Sulfides*.

Honors, William Michael Minihane, *1,1'-Disubstituted Derivatives of the Cobalticinium Ion*.

John Dale Mitchell, *Preparation of 1,2-Bis(diethoxyphosphino)ethane and Some of Its Metal Complexes*.

ECONOMICS: Honors, Larry Emerson Rowe, *An Examination of Various Sales and Income Tax Proposals for Maine*.

ENGLISH: High Honors, Steven John Rustari, "Too Bee Oar Knot 2B": *Shakespeare and the Rival Revenge Moralities*.

Honors, James Milton Bowie, *Pinter Poetics, Essence, and Technique in the "Comedies of Menace"*.

Harry Allan George, *Notes toward an Appreciation of T. S. Eliot*.

Bruce Christopher Jordan '69, *Affirmation of the Spirit in James Joyce's "The Dead"*.

FRENCH: Honors, Thomas Joseph Berry, Jr., *L'Humanisme d'André Malraux*.

GERMAN: High Honors, Richard Carleton Crispin, *Differences in the Use of Certain Elements of Drama by Schiller, Brecht, and Peter Handke*.

Roger Vance Homer, *Man and Fate: A Comparative Study of Theodor Fontane and Max Frisch*.

Honors, Robert Charles Sweeney, *The Influence of the Philosophy of Schopenhauer on Thomas Mann's Buddenbrooks*.

GOVERNMENT: High Honors, Lawrence Putterman, *The Electoral College: The Efficacy of Participatory Democracy*.

Honors, Thomas Jan Lindblad, *White Integration or Black Power: Beyond Myrdal's Dilemma*.

HISTORY: Highest Honors, Wayne Ralph Strasbaugh, *Allied Policy in the Baltic States after the First World War*.

High Honors, Stephen Jerome Buchbinder, *A Reappraisal of Booker T. Washington: A Look at His Educational and Economic Policy*.

Bruce Edward Cain, *Will Rogers: Humorous Critic of American Society*.

Thomas Weston Hill, *Democratic Deadlock: Britain and Russia, 1918-1920*.

George Walter Price, *Belgian Foreign Policy, 1919-1925: The Quest for Security.*

David Arthur Siskind, *The Social and Economic Assistance of the United Nations to the Palestine Refugees, 1948-1956.*

Honors, David Emerson Bullard, *The Korean Crisis, 1945-1950: U.S. and U.N. Policy.*

James Hugh Burr, *Decline and Fall: The German High Command, 1938-1940.*

Gordon Christopher Crichton, *Italo-German Relations, 1933-1936.*

August Charles Miller III, *The Second Vatican Council: Prelude to Schism?*

Richard Henry Saunders III, *The Importation of English Furniture into Massachusetts: 1620-1775.*

John Claridge Taylor, *Election of 1884: A Perspective on Politics in America.*

Alexander MacGregor Turner, *DeGaulle and Roosevelt: The Struggle of the Free French.*

MUSIC: *Highest Honors*, Peter Clinton Wilson, *Three Mixed Media Pieces: (1) "Circus," (2) "A Children's Piece," (3) "Voyage."*

Honors, Michael Laszlo Garroway, *A Comparative Study of Contemporary Notation as Expressed through the Music of the Avant-Garde.*

PHILOSOPHY: Honors, Douglas Keith Showalter, *Whitehead and a New Reformation of Theology.*

PHYSICS: *Highest Honors*, Wayne Coffman Sanford, *Plasma Oscillations and Thin Film Conductivity.*

High Honors, Henry Philips Day, Jr., *Taylor Columns.*

Honors, Paul Leslie Sherman, Jr., *The Optical Constants of Bismuth.*

PSYCHOLOGY: Honors, Richard Edward Morley, *The Effects of Vocal and Instrumental Rock Music on Reading Comprehension.*

Willard Pearson Warwick, *The Effects of Word Familiarity and Category Size on Reaction Time in a Word Recognition Task.*

RELIGION: *High Honors*; Allan Wesley LeGrow, *A Study of Saint Augustine's Doctrine of Man.*

Honors, Jeff Douglas Emerson, *Friedrich Nietzsche: Toward an Atheistic Existentialism.*

AWARDS

CLASS OF 1922 GRADUATE SCHOLARSHIP: Douglas Keith Showalter.

CHARLES CARROLL EVERETT SCHOLARSHIP: Wayne Ralph Strassbaugh.

GUY CHARLES HOWARD SCHOLARSHIP: Louis Bruno Briasco '69.

HENRY W. LONGFELLOW GRADUATE SCHOLARSHIP: Hubert Clyde Vanhorn Smith.

WILMOT BROOKINGS MITCHELL GRADUATE SCHOLARSHIP: James Milton Bowie.

GALEN C. MOSES GRADUATE SCHOLARSHIP: Mwindace Nkongwa Siamwiza '69.

O'BRIEN GRADUATE SCHOLARSHIPS: Robert Emmel Ives '69, Thomas Jan Lindblad, Mwindace Nkwonga Siamwiza '69, David Arthur Siskind.

LEE G. PAUL SCHOLARSHIPS: Martin Alan Glazer '68, Fred Elmore Haynes III '67, Thomas Arthur Johnson '69.

NATHAN WEBB RESEARCH SCHOLARSHIP: Steven John Rustari.

RHODES SCHOLARSHIPS: Dennis James Hutchinson '68, Bruce Edward Cain.

WATSON FELLOWSHIP: Frederick Wellington Lyman.

WOODROW WILSON NATIONAL FELLOWSHIP: Douglas Keith Showalter.

BROWN MEMORIAL SCHOLARSHIPS: Anthony Louis Esposito, Frederick Robinson Burrage '71, John Joseph Huszonek '72, William Roger Bryant '73.

GOODWIN COMMENCEMENT PRIZE: (For 1970) Edward Howland Burtt, Jr. (For 1969) Bradley Alan Bernstein '69.

CLASS OF 1868 PRIZE: (For 1970) Clark Thomas Irwin, Jr. (For 1969) Timothy O. Devlin '69.

ALMON GOODWIN PHI BETA KAPPA PRIZE: Kent William Johnson '71.

GEORGE WOOD MCARTHUR PRIZE: Steven John Rustari.

LEONARD A. PIERCE MEMORIAL PRIZE: Paul Amandio Batista.

CURTIS E. CHASE MEMORIAL PRIZE: John David Delahanty.

ANDREW ALLISON HALDANE CUP: (For 1970) Erland Borrner Hardy,
Stephen Hall Hardy. (For 1969) Dominic Arthur Femino, Jr. '69.

LUCIEN HOWE PRIZE: John Bradford Cole.

COL. WILLIAM HENRY OWEN PREMIUM: Richard Danforth Barr.

FRANKLIN DELANO ROOSEVELT CUP: Robert Cecil Johnson, Jr. '71.

LEA RUTH THUMIM BIBLICAL LITERATURE PRIZE: Gregory Joseph
Darling.

COPELAND-GROSS BIOLOGY PRIZE: Edward Howland Burt, Jr.

DONALD AND HARRIET S. MACOMBER PRIZE IN BIOLOGY: Roger
Alexander Renfrew.

AMERICAN CHEMICAL SOCIETY—UNDERGRADUATE AWARD IN ANALYTICAL
CHEMISTRY: Richard Newton Abbott, Jr. '71.

AMERICAN INSTITUTE OF CHEMISTS—STUDENT MEDAL: Charles
Himes Clapp.

MERCK INDEX AWARD: Joel Chandler Bradley.

PHILIP W. MESERVE PRIZE IN CHEMISTRY: Richard Alan Wilson '71.

NATHAN GOOLD CLASSICS PRIZE: Cameron Kennedy Dewar.

NOYES POLITICAL ECONOMY PRIZE: Eugene Earl Ford, Jr.

ACADEMY OF AMERICAN POETS' PRIZE: Harry Allan George.

BROWN EXTEMPORANEOUS ENGLISH COMPOSITION PRIZE: Clark
Thomas Irwin, Jr.

HAWTHORNE PRIZE: Lawrence Charles Kaplan '72.

POETRY PRIZE: Harry Allan George.

PRAY ENGLISH PRIZE: Steven John Rustari.

DAVID SEWALL PREMIUM IN ENGLISH COMPOSITION: Eric LaRue
Hunter '73.

FORBES RICKARD, JR., POETRY PRIZE: Harry Allan George.

MARY B. SINKINSON SHORT STORY PRIZE: Patrick Joseph McDonald
'71.

EDGAR O. ACHORN DEBATING PRIZES: 1st: Steve Saunders Carter, Jr.

'73, Joseph Carroll Cove '73; 2nd: David Francis Sheehan '72, Eric Matthew Weis '73.

DEALVA STANWOOD ALEXANDER DECLAMATION PRIZES: 1st: Stephen Thomas Marchand '73; 2nd: Donald Wilson Westfall '72.

BRADBURY DEBATING PRIZES: 1st Award: Bruce Edward Cain, Jeff Douglas Emerson; 2nd Award: Clark Thomas Irwin, Jr., David Francis Sheehan '72.

HILAND LOCKWOOD FAIRBANKS PRIZES IN PUBLIC SPEAKING: (*English* 4) 1st: John David Clifford IV '73, 2nd: Robert Allan Loeb '73; (*English* 5) Daniel Joseph Gilmore III '72; (*English* 6) William Sumner Branting '71.

GOODWIN FRENCH PRIZE: Edward Martin Keazirian, Jr. '73.

EATON LEITH FRENCH PRIZE: Stephen Weston Hanscom '71.

THE OLD BROAD BAY PRIZES IN READING GERMAN: Those who began German in college: (1) William Michael Menning '71, (2) Scott Hamlin Melvin '72, (3) Gordon Christopher Crighton. Those who began German in high school: (1) Roger Vance Homer, (2) Richard Carleton Crispin, (3) Mark Stevan Jelavich '73.

PHILO SHERMAN BENNETT PRIZE FOR BEST ESSAY ON PRINCIPLES OF FREE GOVERNMENT: Lawrence Putterman.

FESSENDEN PRIZE IN GOVERNMENT: Richard Thomas Jerue.

SEWALL GREEK PRIZE: Robert Lee Crane, Jr. '72.

CLASS OF 1875 PRIZE IN AMERICAN HISTORY: Stephen Jerome Buchbinder.

HANNIBAL HAMLIN EMERY LATIN PRIZE: Stephen Hall Hardy.

SEWALL LATIN PRIZE: Robert Lawrence Bassett '72.

SMYTH MATHEMATICAL PRIZES: Kenneth Samuel Lidman, Kent William Johnson '71, Richard Warwick Zeamer '72.

SUE WINCHELL BURNETT MUSIC PRIZE: Peter Clinton Wilson.

SUMNER I. KIMBALL PRIZE FOR EXCELLENCE IN NATURAL SCIENCES: Henry Philips Day, Jr.

NOEL C. LITTLE PRIZE IN EXPERIMENTAL PHYSICS: Wayne Coffman Sanford.

JAMES BOWDOIN CUP: Wayne Coffman Sanford.

ORREN CHALMER HORMELL CUP: Robert Lawrence Bassett '72.

ROLISTON G. WOODBURY MEMORIAL AWARD: Howard Rollin Ives III.

LESLIE A. CLAFF TRACK TROPHY: Frank Fabean Sabasteanski, Jr. '69.

WILLIAM J. FRASER BASKETBALL TROPHY: Howard Rollin Ives III.

WINSLOW R. HOWLAND FOOTBALL TROPHY: Cameron Kennedy Dewar.

ELMER LONGLEY HUTCHINSON CUP (VARSITY TRACK): Frank Fabean Sabasteanski, Jr. '69.

GEORGE LEVINE MEMORIAL SOCCER TROPHY: John Lupton Broomell.

ROBERT B. MILLER TROPHY (SWIMMING): John Shafer Spencer.

HUGH MUNRO, JR., MEMORIAL TROPHY (HOCKEY): Erland Borrner Hardy, Stephen Hall Hardy.

PAUL NIXON BASKETBALL TROPHY: Richard Copeland Miller.

WALLACE C. PHILOON TROPHY (FOOTBALL): John William Amrol '71.

WILLIAM J. REARDON MEMORIAL FOOTBALL TROPHY: John David Delahanty.

HARRY G. SHULMAN HOCKEY TROPHY: James Donald Block '71.

MASQUE AND GOWN FIGURINE: Stephen Andrew Fulchino '71.

MASQUE AND GOWN ONE-ACT PLAY PRIZE: Stephen Andrew Fulchino '71.

ABRAHAM GOLDBERG PRIZE: Hubert Clyde Vanhorn Smith.

GEORGE H. QUINBY AWARD: Stevan Lemont Sylvester '73.

THE PERSHING-PRESNELL SWORD: Wayne Coffman Sanford.

THE GENERAL PHILOON TROPHY: Wayne Coffman Sanford.

RESERVE OFFICERS' TRAINING CORPS AWARDS: Gordon Christopher Crighton, John David Delahanty, Alfred Jacobsen Jessel, Daniel Stanley Konieczko, Stephen Bickford Lang, Wayne Coffman

Sanford, Edward Matthew Good '71, William Michael Menning '71, William Alfred Burroughs '72, Dale Butler Flora '72, Samuel Berry Broadbudd '73, Mark Godwin '73, Harry George Simmeth, Jr. '73.

DISTINGUISHED MILITARY GRADUATES: Richard Howard Card, Gordon Christopher Crighton, John David Delahanty, John Francis Erkkinen, Alfred Jacobsen Jessel, Stephen Bickford Lang, Wayne Coffman Sanford, Dale Henry Tomlinson.

JAMES BOWDOIN SCHOLARS

1969-1970

Robert Lawrence Bassett '72	Gordon Francis Grimes '71
Paul Amandio Batista '70	Gary John Hallee '72
Roland Beaudoin '71	Neil Harris Hamlin '70
David James Bradshaw '72	Stephen Weston Hanscom '71
John Michael Brewer '71	Thomas George Harrison '72
Timothy Henry Buchman '72	Peter Neal Hess '72
William Alfred Burroughs '72	John Joseph Huszonek '72
George Hench Butcher III '72	Kent William Johnson '71
Bruce Edward Cain '70	Glenn Scott Kaplan '72
Thomas Edgar Carbonneau '72	Alfred Brian Kelleher '71
Mark Dennis Challberg '72	Stephen Bonney Kern '71
William Young Christie '70	Stephen John Knerly, Jr. '72
Charles Himes Clapp '70	Frederic Williams Lambie '72
Matthew Edward Clenott '72	Richard Paul Lampert '70
Craig George Cogger '72	James Linden Lefferts '72
Lawrence David Cohan '71	William Hall Lever '71
Richard Alan Cohen '72	William Roger Meservey '72
Miles Coverdale, Jr. '71	Alexander Leon Mesrobian '72
Gordon Christopher Crighton '70	William Michael Minihane '70
Joseph Martin Cusack '72	John Lewis Myers '72
Henry Philips Day, Jr. '70	Mark Timothy Parker '71
Harry Dean Demeter '71	Donald Wayne Patrick '71
Stephen Anthony DeVasto '72	Lawrence Putterman '70
Jeffrey Newell Drummond '72	Roger Alexander Renfrew '70
Roger Dean Eliason '72	Steven John Rustari '70
Blair Courtney Fensterstock '72	Michael Anthony Ryan '72
Eugene Earl Ford, Jr. '70	Wayne Coffman Sanford '70
Thomas John Garabedian '72	Michael Allan Schuyler '70
John Wilson Georgitis '72	David Francis Sheehan '72
Stephen Ernest Glinick '71	Douglas Keith Showalter '70
	David Herschel Sperling '72

Ernest Max Stern '72	Nicholas Peter Tsapatsaris '71
William Thomas Stewart '71	William Thompson Webster, Jr.
James Peter Stonestrom '72	'72
Wayne Ralph Strasbaugh '70	Peter Clinton Wilson '70
Richard Newman Terry, Jr. '71	Richard Warwick Zeamer '72

Alumni Organizations

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William D. Ireland, Jr. '49

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Term expires in 1971

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Term expires in 1973

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Term expires in 1972

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Term expires in 1974

Paul E. Gardent, Jr. '39

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Term expires in 1971

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Term expires in 1972

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Term expires in 1974

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Term expires in 1975

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Faculty Member

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Editor of the Bowdoin Alumnus

Edward Born '57

Other Council Members are the representatives of recognized local Alumni Clubs and three members of the undergraduate body.

The officers of the Alumni Council are ex officio the officers of the Bowdoin College Alumni Association. The Council Members-at-Large, the Directors of the Alumni Fund, the Faculty Member, the Treasurer, the Secretary of the Alumni Fund, and the Alumni Secretary serve as the Executive Committee of the Council and of the Association.

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Ross Street, Kennebunk, Maine 04043

One of the principal sources of both endowment and income in recent years has been the Alumni; and the Alumni Fund, inaugurated in 1869 and reorganized in 1919, has contributed \$3,068,217 for the capital needs of the College and a further sum of \$3,054,560 for current expenses, as of June 30, 1970.

THE ALUMNI SERVICE AWARD

First established in 1932 as the Alumni Achievement Award and changed in name to the Alumni Service Award in 1953, this award is made annually to the man who, in the opinion of his fellow alumni, as expressed by the Alumni Council, best represents the alumnus whose services to Bowdoin most deserve recognition.

The recipients for the last ten years have been:

- 1961 Frederick W. Willey '17
- 1962 William D. Ireland '16
- 1963 John C. Pickard '22
- 1964 Emerson W. Zeitler '20
- 1965 Earle S. Thompson '14
- 1966 Glenn R. McIntire '25
- 1967 Willard B. Arnold III '51
- 1968 Philip S. Wilder '23 and Donovan D. Lancaster '27
- 1969 Sanford B. Cousins '20
- 1970 Louis Bernstein '22

ALUMNI AWARD FOR FACULTY AND STAFF

The Alumni Award for Faculty and Staff was established by the Alumni Council in 1963 and is awarded each year "for service and devotion to Bowdoin, recognizing that the College in a larger sense includes both students and alumni." The Award is presented at the annual Alumni Day Luncheon in the fall and consists of a unique Bowdoin clock and a framed citation.

- 1963 Athern P. Daggett '25
- 1964 Hubert S. Shaw '36
- 1965 Nathaniel C. Kendrick H'66
- 1966 Manton Copeland
- 1967 Samuel E. Kamerling
- 1968 Herbert R. Brown H'63
- 1969 Albert Abrahamson '26
- 1970 Nathan Dane II '37

DISTINGUISHED BOWDOIN EDUCATOR AWARD

The Distinguished Bowdoin Educator Award was established by the Alumni Council in 1964 to recognize "outstanding achievement" in education by a Bowdoin alumnus in any field and at any level of education—except alumni who are members of the Faculty and Staff. The Award is presented at the annual campus meeting of the Bowdoin Teachers' Club in April and consists of a framed citation and five hundred dollars.

1965	Wilbert Snow '07
1966	Frank E. MacDonald '23
1967	George T. Davidson, Jr. '38
1968	Jeffrey J. Carre '40
1969	Herbert B. Moore '48
1970	John S. Holden '35

ALUMNI RECORD

The College wishes to have the most complete record possible of the addresses, occupations, and public services of its alumni. It solicits information in regard to these points as well as to matters appropriate to the *Bowdoin Alumnus*, an alumni magazine published at the College.

Communications should be addressed to the Alumni Secretary, Bowdoin College, Brunswick, Maine 04011. Alumni are particularly urged to keep the Alumni Secretary informed of any changes of address.

THE SOCIETY OF BOWDOIN WOMEN

The Society of Bowdoin Women was formed in 1922 and is believed to be the oldest organization of its kind in existence. Its purpose, stated in its constitution, is to provide "an organization in which women with a common bond of Bowdoin loyalty may, by becoming better acquainted with the College and with each other, work together to serve the College in every possible way."

In carrying out its fourfold program, the Society has made specific gifts to the College such as silver and china for the President's house and the Dean's house, and a television set for the Infirmary. It supports an unrestricted endowment fund, the income of which amounts to over \$2,000 each year. In 1961 the Society established the Edith Lansing Koon Sills Lecture Fund, honoring Mrs. Kenneth C. M. Sills, the wife of a former president of the College. The income from this fund supports lectures at the College. Lastly, the Society hosts two luncheons at Commencement for all women

on the campus. At the Saturday luncheon the mothers and wives of the members of the graduating class are honored guests.

Membership in the Society is open to any interested woman by the payment of annual dues of \$2.00. There are about nine hundred members in the Society, and it is their enthusiasm, together with their dues and contributions, which makes possible the Society's program.

OFFICERS FOR 1970-1971

Honorary President, Mrs. Roger Howell, Jr.

President, Mrs. Vincent B. Welch

Vice President, Mrs. Leonard C. Mulligan

Secretary, Mrs. Richard A. Morrell

Treasurer, Mrs. Albert E. Gibbons, Jr.

Assistant Treasurer, Mrs. Charles L. Sawyer

BOWDOIN FATHERS ASSOCIATION

Organized in 1946, the Bowdoin Fathers Association has as its purpose "to contribute to the development and perpetuation of the spirit which has made Bowdoin the college that it is."

Since 1950 the Association has given a prematriculation scholarship, usually equal to tuition, to be awarded to a deserving candidate from outside New England. In 1962 the Association established an annual grant to be awarded under the direction of the president of the College to undergraduates or graduates to enable the recipients to participate in summer research or advanced study directed towards their major field or life work.

An annual meeting is held in October in conjunction with Parents' Weekend, which owes its success largely to the efforts of the Bowdoin Fathers Association. All fathers of Bowdoin undergraduates are eligible for membership in the Association. Annual dues are \$10.00, and each father residing outside the continental United States or Canada is automatically an honorary member of the Association without payment of dues during the period his son is attending the College.

OFFICERS FOR 1969-1970

President, Thomas E. Delahanty

1st Vice President, Stewart F. Oakes

2nd Vice President, Nathaniel Fensterstock

Secretary, Robert P. Lampert

Treasurer, Herbert E. Mehlhorn

Index

- ABRAXAS AWARD, 203
Academic Calendar, vi-viii
Accident and Medical Insurance, 43
Activities, Extracurricular, 180-188
Activities Fee, 42
Adams Hall, 28
Adams Lecture Room, 31
Administrative Officers, 21-25
Administrative Offices and Office
 Hours, 41
Admission to College, 44-48
 Advanced Standing, 46-47
 Application Procedure, 45-47
 by Examination, 46
 Fee for Admission, 46
 Interviews, 46
 Prematriculation Scholarship Procedure, 47-48
 School Statement, 46
 Special Standing, 47
 Transfer Students, 47
Afro-American Center, 33
Afro-American Society, 187
Afro-American Studies, 82-83, 87-88
Aid, Financial, 49-76
 Annually Funded Scholarships, List
 of, 70-72
 Basis of Award, 49-51
 Bursaries, 51
 Endowed Scholarships,
 List of, 52-70
 General Scholarships, 51, 52
 Graduate Scholarships, 72-74
 Loan Funds, 74-76
 Prematriculation Scholarships, 50
 Student Book Fund, 76
Alumni, Total Number Living, 43
Alumni Award for Faculty and Staff,
 228
Alumni Clubs, 224-228
Alumni Council, 223-224
Alumni Fund
 Directors of, 223
 Scholarships, 70
Alumni House, 33
Alumni Organizations, 223-230
Alumni Record, 229
Alumni Service Award, 228
Alumnus, Bowdoin, 223, 229
Anthoensen Collection, 162, 171
Appleton Hall, 27
Appointments, Prizes, and Awards,
 213-222
Art, Courses in, 88-91
Art Building, Walker, 28
 Notable Collections in, 168-169
ASPAU Scholars, 183
Astronomy, Courses in, 139-140
Athletic Fields
 Pickard Field, 30
 Whittier Field, 29
Athletics
 Intercollegiate, 189
 Intramural, 189

BACHELORS, BOWDOIN, 171, 186
Banister Hall, 27-28
Berry Special Collections Suite, 40
Bills, College, 41-43
 Payment of, 41
Biology, Courses in, 91-94
Bliss Room, 29, 163
Board, Cost of, 42
Book Funds, 164-167
Bookstore, 182
Bowdoin, James
 Earliest Patron, 1
 James Bowdoin Scholars, 221-222
 Private Library of, 162
Bowdoin Book Awards, 204-205
Bowdoin *Bugle*, 186
Bowdoin College, Historical Sketch of,
 1-4
Bowdoin Day, James, 204-205
Bowdoin Fathers Association, 230
 Fund, 207-208
Bowdoin Orient, 185
Bowdoin Polar Bear, Statue of, 35

- Bowdoin Prize, 192
 Bowdoin Scientific Station, 175
 Brown Lobby, 39
Bugle, Bowdoin, 186
 Buildings and Campus, 26-40
 Map of, *facing* 26
 Other Memorials, 34-40
 Bureau for Research in Municipal Government, 173
 Burnett Room, 31
 Bursaries, 51

 CALENDAR, ACADEMIC, vi-viii
 California-Bowdoin Three-Two Plan, 84
 Campus and Buildings, 26-40
 Map of, *facing* 26
 Other Memorials, 34-40
 Career Counseling and Placement, 191
 Catlin Path, 37
 Center for Economic Research, 173
 Chamberlain Hall, 33
 Chamberlain, Joshua Lawrence, Administration of, 2
 Chapel, 27-28
 Chase Barn Chamber, 32-33
 Chase Memorial Lamps, 37
 Chemistry, Courses in, 94-96
 Chimes, The College, 27
 Class of 1875 Gateway, 34
 Class of 1878 Gateway, 34
 Class of 1886 Paths, 36
 Class of 1895 Path, 36
 Class of 1898 Bulletin Board, 35
 Class of 1903 Gateway, 35
 Class of 1909 Music Fund, 38
 Class of 1909 Organ, 38
 Class of 1910 Path, 35-36
 Class of 1912 Polar Bear, 35
 Class of 1914 Librarian's Office, 39
 Class of 1916 Path, 36
 Class of 1919 Path, 36
 Class of 1922 Fountain, 40
 Class of 1924 Radio Station, 36, 186
 Class of 1927 Room, 31

 Class of 1928 Faculty Research Fund, 205
 Class of 1929 Electronic Chimes System, 40
 Class of 1937 Lounge, 38
 Class of 1938 Newspaper Room, 39
 Classes, Time and Place of, 87
 Classics, Courses in, 96-97
 Greek, Courses in, 96-97
 Latin, Courses in, 97
 Cleaveland Hall, 31
 Cloudman Fountain, 35
 Coe, Dudley, Infirmary, 29-30
 Shumway Wing, 30
 Coffin Reading Room, 39
 Colbath Room, 40
 Coleman Farm Independent Studies Experiment, 83
 Coleman Hall, 27
 Coles, James Stacy, Administration of, 3-4
 College Bills and Fees, 41-43
 College Board Tests, 46
 College Entrance Examination Board, 46
 College Scholarship Service, 47-48
 Columbia-Bowdoin Combined Plan, 84
 Commencement Appointments, Prizes, and Awards, 213-222
 Commissions, Reserve, 157-158
 Committees
 Faculty, 18-20
 Governing Boards, 8-9
 Composition, Prizes in, 197-199
 Computing Center, 29
 Courses of Instruction, 87-156
 Curricular Requirements, 77-79
 Curriculum, 77-86
 Curriculum Committee, Student, 184-185
 Curtis Memorial Organ, 27
 Curtis Room, 39
 Curtis Swimming Pool, 30

 DANA LABORATORY, 31

- Dane Flagpole, 37
- Dean's List, 78
- Debating, 186
 - Prizes in, 196-197
- Deficiency in Scholarship, 78
- Degrees
 - Conferred in August 1969, 209
 - Conferred in June 1970, 209-212
 - Requirements for, 77
 - Total Number Conferred, 43
 - Two-Degree Plan, 84-85
 - With Distinction, 80
 - Conferred in 1970, 213-214
- Departmental Honors, 80
 - Awarded in 1970, 214-216
- Development Fund, Faculty, 205
- Dining Accommodations, 181
- Distinguished Bowdoin Educator Award, 229
- Dormitories, 27
 - Cost of Rooms, 42
- Drama and Stagecraft, 170
 - Prizes in, 198-199
- Dudley, James Frederick, Classroom, 37
- ECONOMIC RESEARCH, CENTER FOR, 173
- Economics, Courses in, 98-101
- Education, Courses in, 102
- Employment, Part-time Student, 49-50, 51, 191
- Endowed Scholarships, 52-70
- English, Courses in, 102-107
- Entrance Examinations, 46
- Environmental Studies, 83
- Examinations, 77
- Expenses, College, 41-43
- FACULTY, COMMITTEES OF, 18-20
- Faculty Development Fund, 205
- Faculty Research Fund, 205
- Faculty Room, 27
- Failure in Courses, 78
- Fees, 41-43
 - Activities, 42
 - Admission, 46
 - Room and Board, 42
 - Tuition, 41-42
- Fellows, Teaching, 18
- Fessenden Conference Room, 40
- Financial Aid, 49-76
- Fine Arts, The, 168-172
 - Art Collections, 168-169
 - Drama and Stagecraft, 170
 - Music, 171-172
 - Printing and Typography, 170-171
- Flagpole, Memorial, 35
- Fraternities, 182-183
- French, Courses in, 146-149
- Fuller Reading Room, 39
- GARCELON AND MERRITT FUND, 74
- Gardner Bench, 36-37
- General Information, 41-43
- General Scholarships, 51, 52
- Geology, Courses in, 107-109
- German, Courses in, 109-110
- Getchell House, 32
- Gibson Hall of Music, 31
- Gibson-Bird Electric Scoreboard, 29
- Glee Club, 171, 186
- Governing Boards, 5-9
- Government and Legal Studies,
 - Courses in, 110-115
- Grades
 - Method of Computing, 77-78
 - Reports, 78
 - Required for Graduation, 77-78
- Graduate Scholarships, 72-74
 - Arts and Sciences, 72-74
 - Law, 74
 - Medicine, 74
- Grandstand, Hubbard, 29
- Greek, Courses in, 96-97
- Gross, Alfred O., Fund, 207
- Gymnasium, Morrell, 33-34
 - Sargent, 29
- HAM HOUSE, 31
- Haskell House, 34
- Hawes Memorial, 33
- Hawthorne-Longfellow Hall, 34

- Hawthorne-Longfellow Library, 34,
 160-163
 Historical Sketch, 1-4
 History, Courses in, 115-121
 Hockey Arena, 32
 Honor System, 180, 184
 Honorary Degrees
 Conferred in 1970, 212
 Honors
 Departmental, 80
 General, 80
 Honors in Subjects
 Awarded in 1970, 214-216
 Requirements for, 80
 Honors Project, 79-80
 Hospital, 29-30
 Howell, Roger, Jr., Administration
 of, 4
 Hubbard Grandstand, 29
 Hubbard Hall, 29
 Hutchinson Lounge and Terrace, 38
 Hyde, Thomas Worcester, Athletic
 Building, 29
 Hyde, William DeWitt, Administra-
 tion of, 2-3
 Hyde Hall, 27
- INDEPENDENT STUDY PROJECT, 79-80
 Independents, 183
 Infirmary, Dudley Coe, 29-30
 Information, General, 41-43
 Information Center, 30, 181-182
 Instruction
 Courses of, 87-156
 Officers of, 10-20
 Interdepartmental Courses, 154-155
 Interdepartmental Majors, 78-79, 82-
 83
 Italian, Courses in, 149
- JAMES BOWDOIN DAY, 204-205
 James Bowdoin Scholars, 221-222
 Johnson House, 32
- KELLOGG TREE, 36
 Kent Island, 175
 Kresge Laboratory, 31
- LANGUAGE LABORATORY, 31
 LASPAU Scholars, 183
 Latin, Courses in, 97
 Law Scholarship, 74
 Lectureships and Institutes, 176-179
 Legal Studies, Courses in, 115
 Library, 160-167
 Book Funds, 164-167
 Susan Dwight Bliss Room, 29, 163
 Little Bibliography and Card Cata-
 logue Area, 39
 Little-Mitchell House, 33
 Little Ponds Wildlife Sanctuary, 38
 Living and Dining Accommodations,
 181
 Loan Funds, 74-76
- McCANN MUSIC LOUNGE, 38
 McKeen, Joseph, Administration
 of, 1
 McLaughlin Study, 38
 Magee Training Room, 40
 Maine Hall, 27
 Major Program, 78-79
 Major with Honors, 79-80
 Marine Laboratory, Bowdoin Col-
 lege, 38
 Masque and Gown, 170, 186-187
 Massachusetts Hall, 27
 Master's Degrees
 Conferred in August 1969, 209
 Conferred in June 1970, 212
 M.I.T.-Bowdoin Degrees, 84-85
 Mathematics, Courses in, 121-129
 Matriculants, 43
 Meddiebempsters, 171, 186
 Medical Attendance, 43
 Accident and Medical Insurance, 43
 Medical Scholarships, 74
 Memorial Flagpole, 35
 Memorial Hall, 28, 170
 Pickard Theater in, 28, 32, 170
 Memorials, 34-40
 Military Science, Courses in, 158-159
 Mitchell House, 33
 Mitchell Lounge, 38
 Moore Hall, 27

- Morrell Gymnasium, 33-34
 Morrell Office, 40
 Motor Vehicles, Regulation of, 43
 Moulton Union, 30, 181-182
 Student Union Committee, 182
 Municipal Government, Bureau for
 Research in, 173
 Museum of Art, 28, 168-170
 Associates' Program, 169-170
 Notable Collections in, 168-169
 Music
 Concerts and Recitals, 171-172
 Courses in, 129-132
 Glee Club, 171, 186
 Summer School of Music, 132, 172,
 179
 NATIONAL SCIENCE FOUNDATION INSTI-
 TUTES
 Academic Year, 129
 Summer, 127-128, 178-179
 New Meadows River Sailing Basin, 32
 Nixon Lounge-Conference Room, 40
 OBSERVATORY, 28
 Off-Campus Study, 86
 Office Hours, 41
 Officers of Administration, 21-25
 Officers of Government, 5-9
 Officers of Instruction, 10-20
 Offices and Office Hours, 41
 One-Act Play Contest, 170
 Organ, Curtis Memorial, 27
 Organizations, Alumni, 223-230
Orient, The Bowdoin, 185
 Outing Club, 187
 Overseers, Board of, 6-8
 PACKARD, ALPHEUS SPRING, GATEWAY,
 35
 Peary-MacMillan Arctic Museum, 29
 Peucinian Cup, 204
 Peucinian Room, 36
 Phi Beta Kappa, 204
 Appointments in February and
 June, 1970, 213
 Basis of Election, 204
 Philosophy, Courses in, 132-136
 Physical Education and Athletics,
 189-190
 Physics and Astronomy, Courses in,
 136-140
 Pickard Field, 30
 Pickard Field House, 30
 Pickard Theater in Memorial Hall,
 28, 32, 170
 Pickard Trees, 37-38
 Pierce Reading Room, 39-40
 Pike, Sumner T., Fund, 205
 Polar Bear, Statue of, 35
 Political Forum, 187
 Preengineering Programs, 84-85
 Premedical Studies, 85
 President and Trustees, The, 5-6
 Presidents' Gateway, 35
 President's House, 28
 Printing and Typography, 170-171
 Prizes and Distinctions, 192-208
 Awarded in 1970, 213-222
 Awards for Character, 199-202
 Creative Arts, 198-199
 Debating and Speaking, 196-197
 Departmental Prizes, 193-196
 Essay Prizes, 197-198
 Extracurricular Activities
 and Scholarship, 202-203
 General Scholarship, 192-193
 Military Prizes, 203
 Miscellaneous Prizes, 203-204
 Proctors, Board of, 185
 Psychology, Courses in, 140-142
 Public Affairs Research Center, 173
 Public Speaking
 Prizes in, 196-197
 QUILL, 186
 RADIO, BOWDOIN-ON-RADIO (WBOR),
 36, 186
 Refunds, 42-43
 Registration, 41
 Religion, Courses in, 142-145
 Religious Life, 188
 Reports of Grades, 78

- Requirements
 - Admission, 44-45
 - Degree, 77-78
 - Honors in Subjects, 80
 - Residence, 77, 78
- Research Assistance, Undergraduate, 205-207
- Research Institute of the Gulf of Maine, The, 174
- Reserve Commissions, 157-158
- Reserve Officers' Training Corps, 157-159
- Residence Requirement, 77, 78
- Rhodes Hall, 30
- Robinson, Franklin Clement, Gateway, 35
- Robinson, Warren Eastman, Gateway, 34
- Romance Languages, Courses in, 145-150
 - French, Courses in, 146-149
 - Italian, Courses in, 149
 - Spanish, Courses in, 149-150
- Rooms, Applications for, 42
 - Cost of, 42
- ROTC, 157-159
 - Courses in Military Science, 158-159
 - Prizes in, 203
 - Scholarships, 51
 - Summer Camp, 158, 159
- Russian, Courses in, 150-151
- SARGENT GYMNASIUM, 29
- Schedule of Classes, 87
- Scholarships, Loans, and Financial Aid, 49-76
 - Graduate Study, 72-74
 - Incoming Freshmen, 50
 - Law School Student, 74
 - List of, 52-74
 - Loan Funds, 74-76
 - Medical School Students, 74
 - ROTC, 51
 - Undergraduates, 52-72
- Scholastic Aptitude Test, 46
- Searles, Mary Frances, Science Building, 29
- Senior Center, 33
 - Program, 80-82
 - Seminars, 81, 155-156
 - Student Committee, 185
- Shumway Tree, 37
- Shumway Wing, Infirmary, 30
- Sills, Kenneth C. M., Administration of, 3
- Sills Hall, 30-31
- Simpson Memorial Sound System, 37
- Smith Auditorium, 30-31
- Social Code, 180-181, 184
- Social Service, 187-188
- Society of Bowdoin Women, 229-230
- Sociology, Courses in, 151-153
- Spanish, Courses in, 149-150
- Speaking, Prizes in, 196-197
- Special Students, 47
- Speech Center, 31
- Speech, Courses in, 153-154
- Standing, Advanced, 46-47
- Statistics
 - Number of Degrees Conferred, 43
 - Number of Matriculants, 43
- Student Activities Fee, 42
- Student Book Fund, 76
- Student Council, 183-184
 - Cup, 204
 - Lectureship, 177
 - Members of, 183-184
- Student Curriculum Committee, 184-185
- Student Employment, 49-50, 51, 191
- Student Judiciary Board, 184
- Student Life and Activities, 180-188
- Student Union Committee, 182
- Summer Institutes, 178-179
 - Courses in, 127-129
- Summer School of Music, 132, 172, 179
- Surdna Foundation Undergraduate Research Fellowship Program, 205-207
- Swan Faculty Room, 27
- Swimming Pool, Curtis Memorial, 30
- TALLMAN LECTURESHIP, 176
 - Visiting Professors on, 177

- Teaching (as a career), 85, 102
Teaching Fellows, 18
Telephone Switchboard, 30, 41, 182
Terms and Vacations, 41
Theater, Pickard, 28, 32, 170
Thorndike Oak, 34
Transfer Students, 47
Trustees, 5-6
Tuition, Cost of, 41-42
 Method of Payment, 41
Turner Tree, 37
Twelve-College Exchange, 85-86
- UNDERGRADUATE ACTIVITIES, 180-188
Undergraduate Employment, 49-50,
 51, 191
Undergraduate Research Assistance
 Alfred O. Gross Fund, 207
 Bowdoin Fathers Association Fund,
 207-208
 Research Fellowship Program, 205-
 207
Undergraduate Research Fellowship
 Program, 205-207
 Fellows and Projects in, 206-207
- Union, Moulton, 30, 181-182
 Student Committee of, 182
U. S. Army Reserve Officers' Training
 Corps, 157-159
 Courses in Military Science, 158-
 159
 Prizes in, 203
 Scholarships, 51
 Summer Camp, 158, 159
- VACATIONS, 41
- WALKER ART BUILDING, 28
 Collections in, 168-169
WBOR, Radio Station, 36, 186
Wentworth Hall, 33
Wentworth Laboratory, 31
White Key, 187
Whittier Field, 29
Wilder Cataloguing Room, 39
Winthrop Hall, 27
Woodruff Room, 36
- YOUNG MEMORIAL FIREPLACE, 36

